SOUTH DEALER ISSUE
Pages 9-16

# Croplife®

TOTAL CIRCULATION OVER 8,700 COPIES EACH WEEK
BPA Member, Business Publications Audit

WEEKLY NEWSPAPER FOR THE FARM CHEMICAL MANUFACTURER, FORMULATOR AND DEALER

Published by The Miller Publishing Co., Minneapolis, Minn.

Vol. 3 | Subscription Rates: $5 for 1 year, $9 for 2 years | AUGUST 13, 1956 | Accepted as Controlled Circulation Publication at Minneapolis, Minn. | No. 33

## INDUSTRY WEEK . . .

### Crest Chemical Co. Plant Now Under Construction at South Dakota Site

WATERTOWN, S.D. — Construction of a $200,000 fertilizer plant at Watertown is now under way for the Crest Chemical Co. organized by a group of investors in the community. The new 14,000 sq. ft. plant, being erected by D. M. Weatherly Co., Atlanta, will have a capacity of 30,000 tons a year of granular material.

Marlowe Sharf, president of Crest Chemical Co., told Croplife in a telephone interview, that the plant is expected to begin production in October. Its products are expected to be shipped within a radius of approximately 100 miles of Watertown, located in the eastern portion of South Dakota.

Grades to be produced in the plant will include 12-12-12 and 6-24-12, Mr. Sharf said, and some grades will be low in potash in accordance with soil needs in the area. Shipping facilities are geared to both motor truck and rail facilities, the plant being located adjacent to the Great Northern Railway on a two acre site leased from the Great Northern. All shipping areas are dock height, Mr. Sharf said.

Vice president of the firm is Keith Sharf, brother of Marlowe, who resides in Minneapolis.

### New $3.5 Million Sulfur Plant Is Planned by Texas International Group

HOUSTON—A new 1,000-ton sulfur plant costing about $3.5 million will be built by the Texas International Sulphur Co., it was announced during the recent annual stockholders meeting in Houston. A plan for financing the mining of the company's Mexican deposits was approved by shareholders.

An investment syndicate headed by Guaranty Trust, Inc., of Houston has agreed to provide funds necessary for the development of company sulfur reserves on the Isthmus of Tehauantepec in Mexico, M.A.S. Makris, chairman of Texas International indicated. Sale of debentures to Guaranty Trust also in part will assist in the building of the new plant, it was explained.

### Victor Adds Electric Furnace to Plant

CHICAGO — Directors of Victor Chemical Works have approved plans for the construction of a new 35,000 KW electric furnace for the production of elemental phosphorus at the company's plant at Mount Pleasant, Tenn.

"Construction of the new furnace will begin immediately, and will make a total of five electric furnaces at the Mount Pleasant plant," Rothe Weigel, president said. He added that continually increasing demands for Victor chemicals, in all major fields, are responsible for the decision to increase the company's phosphorus capacity, and we expect the new furnace to begin operating during the last half of 1957."

### V-C Names Three For Sales Positions In Fertilizer Div.

RICHMOND, VA.—A. P. Gates has been named by Virginia-Carolina Chemical Corp. as general sales manager of its fertilizer division. Mr. Gates was formerly assistant to C. C. Arledge, vice president. The corporation has also named John L. French and Charles E. Workman as sales managers in the fertilizer division. Each of the latter two had formerly been assistant sales managers. Messrs. Gates, French and Workman will all operate out of the Richmond office of V-C.

Other changes in company personnel have also been announced. F. Elmore Butler has been named general counsel for the firm, succeeding J. W. Pearsall who was ousted with others of the former management team which lost to an insurgent group of directors following a bitter proxy

(Continued on page 21)

# Hawaiian Melon Fly Found in California Alerts Entomologists

BERKELEY, CAL.—Discovery of the presence of Hawaiian melon fly in California has alerted entomological forces both on the West Coast and in Washington, D.C. to halt any further development or invasion of this potentially destructive pest. USDA entomologists in Washington have emphasized that the seriousness of the situation should not be minimized because only a single specimen has been found.

**Positive identification by Federal entomologists has established the fact that the specimen was indeed Hawaiian melon fly. The insect was sent to experts at the Smithsonian Institution who confirmed the suspicions of California entomologists regarding the species.**

The finding of this single specimen has brought concern to growers because of its potentially serious threat to soft fruits and vegetables grown in California. Entomologists regard the finding of a single insect as significant, since the pest is usually found in large numbers and because of the difficulty of discovery there can be a large build-up of the insect before remedial action can be taken. It is believed that this is the first finding of the insect in the U.S.

Moving to cooperate with California state officials, the USDA pest control branch has shipped several thousand traps to snare the insect. USDA officials believe that sprays such as malathion will control the pest and they are also contemplating the use of oil of angelica seed and a yeast compound as baits.

**Officials say the melon fly has many of the characteristics of the Mediterranean fruit fly as it enters the ground for procreation, indicating that in all probability if further evidence of the presence of the melon fly is found, USDA will also use soil pesticides as well as sprays.**

Host plants for the melon fly are soft fruits such as melons, tomatoes and the whole cucurbit family of plants and fruits.

USDA specialists point out that in the past, similar single incidents of pest discovery ultimately led to dangerous and costly eruptions of epidemic conditions. As a consequence USDA intends to spare no effort to track every bit of evidence of infestation and act boldly and forcefully to eliminate the insect before it gains headway.

While emphasizing the inherent seriousness of the finding, USDA officials are reluctant to give currency to any broadcast alarm which might result in damage to the California fruit and vegetable industry.

The worst fears are that the melon

(Continued on page 21)

### Inside You'll Find


| | |
|---|---|
| World Report | 7 |
| Over the Counter | 9 |
| What's New | 10 |
| Oscar & Pat | 11 |
| Farm Service Data | 12 |
| Bug of the Week | 16 |
| Editorials | 22 |
| Meeting Memos | 23 |
| Index of Advertisers | 23 |


# Fertilizer Trade and Soil Bank Cited by Speakers as Aiding Farm Stabilization

LEXINGTON, KY.—The National Plant Institute, the Tennessee Valley Authority and the Kentucky state office of the Agricultural Stabilization and Conservation program joined with agronomists, entomologists and fertilizer representatives in the annual fertilizer conference at the University of Kentucky at Lexington Aug. 1.

Speakers emphasized the contribution of the fertilizer industry and now the Soil Bank in stabilizing agriculture and yet at the same time increasing farmers' incomes, holding production to the needs of the nation and conserving the soil for future needs.

**W. R. Allstetter, vice president of the National Plant Institute, used lantern slides to show past and present consumption of plant nutrients, with special emphasis on the increased use and value of nitrogen. As late as 1952, he said, U.S. Department of Agriculture officials expressed worry about shortages of foods and nitrogen. They thought more land must be cultivated and more nitrogen should be used than could be produced. Forty nitrogen plants now have a yearly capacity of 4,600,000 tons, he said, and over-supply of agricultural products has now become a problem. Now four million tons of nitrates can be produced annually, enough, when balanced with phosphate and potash, to double production of food and feed crops, he said.**

S. L. Clement, chief of the fertilizer distribution branch of TVA, outlined a plan to spread the use of high-analysis fertilizer in Kentucky. The two analyses proposed for this program are 0-30-30 and 10-30-20. The objective, he said, is to lower the cost of plant nutrients to farmers. He outlined the activities of the TVA in the field of fertilizers, a main

(Continued on page 20)

### Elko Fertilizer Co. Formed in Wisconsin To Make Solutions

ELKHORN, WIS.—Elko Fertilizer Co., Inc. has been formed here for the manufacture and sale of mixed complete neutral fertilizer solutions and aqua ammonia. The firm will also market solutions containing aldrin for corn rootworm control.

**The new company has an authorized capital stock of 1,250 shares of common, no par value. Incorporation papers were signed by Nathan J. Eck, Williams Bay, Wis. Output of the plant is expected to be sold within a 30 mile radius of Elkhorn, it is reported.**

Mr. Eck is also president of Elkhorn Chemical, Inc., which has been producing various agricultural chemicals for the past 8½ years. The Elko Fertilizer Co., however, is an entirely new company. Its plant at Elkhorn is now being completed.

## Radio Telephone for Farm Areas Being Considered by REA

WASHINGTON, D.C.—An engineering project which seeks to develop direct and speedy radio telephone service for isolated rural areas was announced Aug. 8, by the U.S. Department of Agriculture. The project has been planned by USDA's Rural Electrification Administration engineers and will be carried out in collaboration with private firms under contract with the Department.

While radio telephones are in use by mobile subscribers and to some extent in rural areas, present equipment requires the subscriber to make a connection by voice communication with an operator. The object of the present project is to develop equipment that will work satisfactorily directly into dial telephone switching equipment. This development would require a change in the Federal Communication Commission's regulations concerning logging of calls, and such a change has been requested by the Department.

**In the development project, the Department is ordering experimental automatic dial-operated radio telephone equipment from two firms. Under each of the contracts, REA expects delivery in about 6 months of a dial-operated small fixed station operating on 110 volts for isolated subscribers, an automatic base station, and two dial-operated mobile units of 30 watts and 60 watts respectively.**

After development and manufacture, the equipment will be installed on REA-financed telephone systems and tested by REA engineers for a year or more to determine costs and quality of service. It is hoped that the test will show costs substantially below those of wire lines for isolated rural establishments while providing equivalent quality of service.

## CSC Names R. T. Ozimek to Market Research Post

NEW YORK—Richard T. Ozimek has been named supervisor of petrochemicals market research for Commercial Solvents Corp., according to an announcement by Dr. Frank E. Dolian, manager of the market development department.

In his new capacity, Mr. Ozimek will be responsible for coordination of all market research for the company's petrochemical products, including ammonium nitrate fertilizer and other industrial chemicals. Mr. Ozimek will make his headquarters at the general offices of the company in New York.

### CORN FIELD DAY SET

CORVALLIS, ORE.—A corn field day will be held on the Oregon State College east farm Sept. 14. Fertilizer experiments and plant population trials will be featured.

John W. Hall

**NEW APPOINTMENT — John Hall has been appointed vice president in charge of sales, a director and member of the executive committee of Potash Company of America, has been announced by G. F. Cook president of the company. Mr. Hall succeeds the late George E. Petit**

**Starting his business career in the sales department of Swift and Company, and working in various stations of the country, Mr. Hall came to Potash Company of America in 1950 as northern regional sales manager from the Wortham Bag Co. in New York, where he was eastern sales manager. In 1953 he was made general sales manager of his company.**

**The general sales office of Potash Company of America is located in Washington, D.C.**

## North Carolina Safety Conference Scheduled

WILMINGTON, N.C. — A safety training course for fertilizer industry supervisors, scheduled to be held at the Cape Fear Hotel, Wilmington, N.C., Aug. 16-17, will cover a large area involving the responsibilities and opportunities of teaching safety.

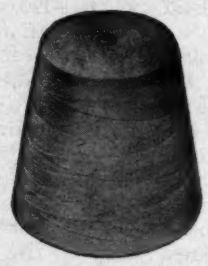
**Curtis A. Cox, Virginia-Carolina Chemical Corp., Richmond, chairman of the fertilizer section, National Safety Council, will open the session of Aug. 16, at which time a 15-minute film, "The Secret of Supervision" will be shown.**

Other topics scheduled for discussion during the two-day meeting will include "Plant Inspection" by E. ... Burroughs, Jr., F. S. Royster Guano Co., Norfolk, Va., vice chairman of the fertilizer section of NSC; "The Supervisor as a Teacher and Leader" by E. T. Chanlett, associate professor in sanitary engineering, University of North Carolina, Chapel Hill, N.C.; "The Accident Problem," by H. S. Baucom, director of safety, North Carolina Industrial Commission, Raleigh, N.C.; "Accident Investigation," by W. C. Creel, safety director, North Carolina Department of Labor, Raleigh.

A number of symposia are scheduled, along with visual presentations covering "Human Feelings in Teaching Safety"; fire prevention, housekeeping, maintenance, handling materials, overhangs, explosions, machine guarding, hand tools, and a discussion on major hazards.

Special attention will be given to the use of movies and visual aids in promoting safety in the plant. Taking part in this portion of the program will be W. M. Shaw, industrial safety inspector, Wilmington, N.C.; C. B. Davis, New Hanover County health officer, Wilmington, N.C., and Mr. Chanlett and Mr. Burroughs.

The two-day session will end with a presentation of a safety film, "Teamwork for Safety," produced by the National Safety Council.

*It's acid-resistant*

*it's strong*

*it's low-priced*

**it's the new Bemis**

**Acid-Resistant Thread**

The new Bemis Acid-Resistant Thread meets a longfelt need for thread for the manufacture and closing of multiwall paper and laminated bags for fertilizers and chemicals with substantial acid content.

You can pack with confidence by using Bemis Bags made with the new Bemis Acid-Resistant Thread . . . and by using this thread in your bag-closing operation. It is made in both 4-ply and 5-ply and handles just like the famous Bemis Special Thread® in a sewing machine. No sewing machine adjustments are necessary.

Get the *complete* story . . . *advantages, prices* . . . from your Bemis Man.

*Bemis*

General Offices—St. Louis 2, Mo.
Sales Offices in Principal Cities

## imate Study Is oposed by Great ains Ag Council

ORT COLLINS, COLO. — Crea- of a controlled-climate labora- for study of plant growth and lopment under varying climatic litions has been proposed by the ate Great Plains Agricultural ncil.

**he recommendation for the na- al laboratory was made at the up's recent three-day meeting Colorado A&M College. Scien- s would be able to control all ses of climate within the labo- ory.**

cting on recommendations of the arch committee, the council also roved a study of climatic condi- s in the Great Plains. This pro- l would break down as follows:

Find areas which have fairly tant climate patterns, and study significance of these patterns to ific crops.

Classify the areas as to the clim- risk according to specific crops.

Study problems of planning farm ranch organizations under condi- s of risks and uncertainties due limate variability.

mmediate steps to plan a weather- iculture research program in the at Plains were advised.

he council also recommended a ly of conservation and efficient of rainfall, plus control of wind water erosion in dryland crop duction. Ways of slowing down poration of moisture from the soil uld also be studied, the group ad- d.

ield experiments based on these dies would help devise new meth- of managing soils, crops and res- es to reduce wind and water sion and conserve soil moisture.

t was recommended that the Coun- s research committee work with Secretary of Agriculture to de- op plans for a soil and moisture earch laboratory for the Great ins region.

**A third main recommendation lled for increased research into eeded adjustments in farming stems in the Great Plains to bet- fit them to market potentials d to environmental conditions. It s suggested that regional and ate problems be considered.**

ourth, the council recommended ther study of irrigation problems a meeting to be called by the coun- Primary aim would be to deter- ne the most important problems in gation and to find which area re- res expanded research.

## Million Science ucation Program nounced by Assn.

WASHINGTON, D.C. — A nation- le education program designed to courage more of America's youth follow a career in science has n announced by the Manufactur- Chemists' Association, Inc.

General John E. Hull (USA ret.) CA president, said the program for ive-year period will cost an esti- ted $1,000,000 and will include rk at elementary, high school, and lege levels.

n commenting on the reasons for new program General Hull said MCA science education program three stated objectives:

. To inspire qualified students to low science as a career.

. To assist educators through development of science-teaching s and "curriculum enrichment" terials.

. To aid and encourage science chers and education administra- s toward the goal of increasing ir numbers, their effectiveness, l their prestige.

## TVA Farmers Hear Review of Test-Demonstration Work

WILSON DAM, ALA.—Some 350 Valley Association test-demonstration farmers and 100 agricultural college extension people and TVA personnel were in attendance at a recent meeting observing 21 years of test-demonstration programs by the Tennessee Valley Authority.

Dr. Harry A. Curtis, TVA director, called the program a "huge success," both for what it has done for the farmers' land and for the farmers themselves. He declared that the program has had the effect of showing good results from the use of high analysis fertilizers, and declared that this has been "of tremendous value to the community and to the fertilizer industry."

Dr. Curtis cited the great improvements wrought by the introduction of fertilizer materials in areas of the south. "Before test-demonstration, low yields on eroded land were the rule," he said. "With that went poor roads, poor schools, and a poor church. After 10 years, in which over 1,200 tons of lime and 200 tons of phosphate were used, crop yields had increased to where community morale improved with a better standard of living."

In connection with the Wilson Dam meeting, farmers present toured the TVA facilities and their wives listened to lectures on farm home electrification and lighting. Members of the test-demonstration association represent 101 counties in the seven Tennessee Valley states.

## Oklahoma Agronomy Day Scheduled for Sept. 4

STILLWATER, OKLA. — The annual fall agronomy day has been scheduled for Sept. 4 at the Perkins agronomy experiment station near Stillwater, according to Frank Davies, Oklahoma A&M college agronomist.

The summer crop review will feature experimental work being carried out in sorghum crops, grass crops, cotton, legumes and corn. Oklahoma A&M college agronomists who will be summarizing various phases of the research during an all-morning tour include Dr. Ralph Matlock, soybeans and cowpeas; Dr. John Green, cotton; Dr. Wade Parkey, castor beans; Dr. James Brooks, corn; Jack Harlan, forage, and Davies, sorghum.

### 8 PROJECTS APPROVED

WASHINGTON—Start of operations on eight watershed protection and flood prevention projects in eight states has been authorized by the U.S. Department of Agriculture. The projects are in California, Kansas, Tennessee, Florida, Louisiana, Kentucky, Texas and Georgia.


DOUBLE VALUE
DOUBLE POWER

FOR YOU...

FOR FARMERS

Sul-Po-Mag®
Water-Soluble Double Sulfate of Potash-Magnesia
$K_2SO \cdot 2MgSO_4$
22% $K_2O$ · 18% MgO

SULFATE OF POTASH
for the profitable production of crops sensitive to chlorides

SULFATE OF MAGNESIUM
for high yields and quality on magnesium-deficient soils

DOUBLE POWER

Sul-Po-Mag supplies both sulfate of magnesium and sulfate of potash in balanced combination and in water-soluble form. It's used by leading fertilizer manufacturers in the premium grades they make for soils low in magnesium and potash. Sul-Po-Mag is a well conditioned material that mixes effectively with other plant foods to produce quality fertilizers that handle smoothly in any distributing equipment.

DOUBLE VALUE

Sul-Po-Mag delivers double value, too. It provides the extra ingredients that make your fertilizer a premium quality grade you can sell with pride and confidence. It supplies the extra ingredients that bring farmers many dollars of extra profit for small additional cost.

AT CARLSBAD, NEW MEXICO

At Carlsbad, New Mexico, the POTASH DIVISION mines and refines these materials for the production of quality fertilizers—Muriate of Potash, Sulfate of Potash, Sul-Po-Mag.

The need for sulfate of magnesium and sulfate of potash for the profitable production of a wide variety of crops in many farming areas is shown by research carried on by many agricultural colleges.

Consistent advertising in farm papers, and on radio and billboards is telling farmers that the most effective way to supply soluble magnesium and potash is to use a quality mixed fertilizer containing *Sul-Po-Mag*. We're building consumer acceptance for your premium grades—so cash in on the growing demand by asking your fertilizer manufacturer for grades containing *Sul-Po-Mag* for use on soils that are low in magnesium and potash. Look for the analysis on the bag . . . *N-P-K.*
*Mg*

POTASH DIVISION INTERNATIONAL MINERALS & CHEMICAL CORPORATION • GENERAL OFFICES: 20 NORTH WACKER DRIVE, CHICAGO 6

Boosting YOUR SALES

THIS AD

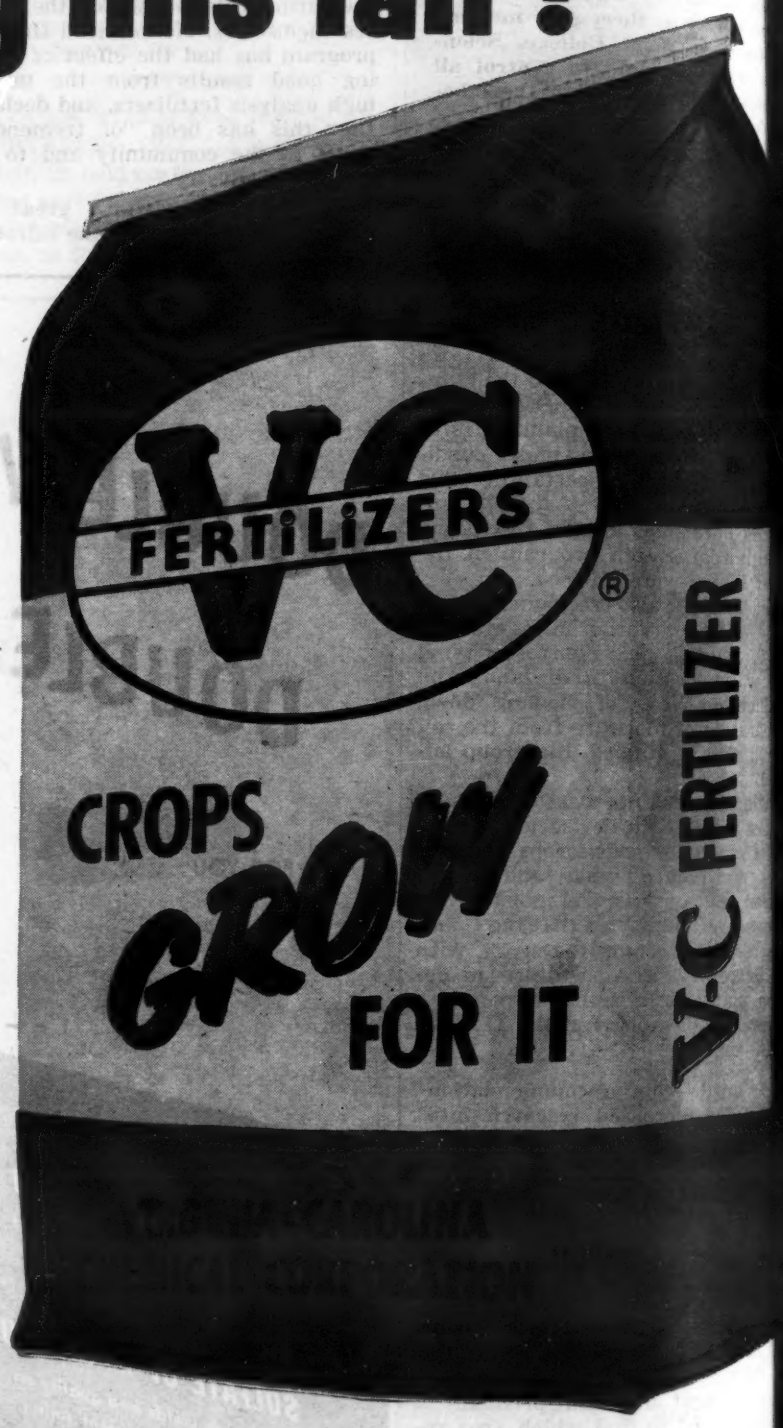
and others like it are appearing in leading farm publications read by YOUR customers

# WHICH CROPS are you fertilizing this fall?

**Are you top-dressing pastures...** seeding small grains . . . or plowing down fertilizer for next year's corn? It will pay you to use V-C Fertilizer in the right grade ***precision-made*** for each crop. You get a rich, mellow blend of better plant foods scientifically balanced to supply the needs of the crop and soil for which it is recommended. You make more money because you get the plant foods your crop must have to produce the yields you want.

**See Your V-C Dealer!**

**V-C uses the best** methods and materials, developed through more than 60 years of experience, to manufacture your ***precision-made*** V-C Fertilizers in a V-C factory near your farm. V-C factory experts, chemists and agronomists are constantly working to bring you more crop-producing power for your fertilizer dollar. See your V-C dealer today! Place your order for ***precision-made*** V-C Fertilizers.




**The best grade PRECISION-MADE for YOUR crop**

**V-C Fertilizers** are ***precision-made*** in the analyses recommended by your Experiment Station or Extension Service.

**V-C Fertilizers** are ***precision-made*** in combinations of plant foods to meet needs indicated by soil tests.

**V-C Fertilizers** are ***precision-made*** to include major plant foods *plus* secondary plant foods and minor elements.

***Famous for crop-producing power and easy-drilling quality since 1895***

***IT PAYS TO BE A V-C DEALER!***

**VIRGINIA-CAROLINA CHEMICAL CORPORATION • RICHMOND 8, VIRGINIA**

Albany, Ga. • Atlanta, Ga. • Baltimore, Md. • Birmingham, Ala. • Carteret, N.J. • Cincinnati, Ohio • Columbia, S.C. • Dubuque, Iowa • East St. Louis, Ill. • Fort Wayne, Ind. • Greensboro, N.C. • Hopkinsville, Ky. • Jackson, Miss. • Memphis, Tenn. • Montgomery, Ala. • Norfolk, Va. • Orlando, Fla. • Richmond, Va. • Savannah, Ga. • Shreveport, La. • Wilmington, N.C.

# INSECT, PLANT DISEASE NOTES

## otted Alfalfa Aphids ntiful in Kansas

ANHATTAN, KAN.—Spotted al- a aphid populations are increasing lfalfa fields in the Kansas River ley, east central Kansas. (August Heaviest infestations were found r Topeka, Shawnee County where nts range generally from 60 to 300 ids per sweep. Counts in a few ds or localized areas within in- ted fields ranged as high as 1,200 sweep. Light deposits of honey were present in fields having nts above 300 aphids per sweep many leaves of the heavily in- ed plants are turning yellow or per-yellow in color and in some es dropping from the plants.

**Aphid colonies were common on e under leaf surface of lower aves and frequently adults and mphs were found on the upper rface of the top leaflets of the fested plants. East of Shawnee ounty, Douglas, Jefferson, and eavenworth counties had counts at ranged from 15 to 240 per weep. Counts in Riley, Pottawa- mie, and Wabaunsee counties nged 15 to 300 while Johnson ounty, extreme east central had unts of less than 10 aphids per weep. Infestation levels vary eatly between fields and even ithin fields.**

Grasshoppers in east central Kan- have moved into corn, sorghum, d soybean fields. Alfalfa fields con- n higher populations than fields of w crops. Counts along field margins nge from 4 to 28 per square yard d field counts range from less than e to about 9 per square yard. Popu- ions are still largely confined to rginal areas and alfalfa fields; wever the overall average counts e much lower than appearances dicate. The differential grasshopper, e two-lined, and the lesser migra- y are the dominant species pres- t. Only light populations of second neration lesser migratory 'hoppers re observed.

Very light populations of yellow- riped armyworm larvae were found alfalfa fields in east central Kan- s. Counts ranged from 15 to 30 per sweeps.

**The following European corn orer infestations were recorded or east central Kansas counties: efferson and Leavenworth 4 to 2%; Johnson and Douglas 4 to %; and Shawnee 4%. Larvae were robably third instar second gen- ration growth stage.**

Most corn fields in east central ansas have rather heavy infesta- ons of corn earworm larvae. Some the fields checked had infestations at ranged as high as 96% of the rs infested.

Populations of alfalfa caterpillar in lfalfa fields that are near bloom or bloom in east central Kansas nged from 1 to 4 larvae per sweep nd averaged about 2 per sweep. bout one-fourth of the larvae have en parasitized.—Dave Matthew.

## agworms Pose Severe roblem in Indiana

LAFAYETTE, IND.—A prediction hat 1956 may be the worst year in story for bagworm damage rapidly coming true, says Glen Lahker, urdue University entomologist. The orms are now feeding on all kinds trees and shrubs, some of which e already defoliated, he reports. he insects normally prefer the cli- ate of central and southern Indiana ut this year some of the most severe mage has been reported from the rthern areas.

Homeowners have been urged to amine trees and shrubs for pres- ence of the worms, and to apply con- trol measures.

## Grasshoppers a Threat to Minnesota Fields

ST. PAUL, MINN.—Although low populations of grasshoppers are being counted in Lake of the Woods and Roseau Counties where legumes grown for seed have been sprayed for weevil and plant bugs, nearby fields that have been cut, contain heavy infestations of grasshoppers. These include 1st to 2nd instar red-legged, adult two-striped, and adult M. packardi 'hoppers. Probably the dense vegetation in uncut fields has prevented the hatching of eggs from the red-legged species.

**In the sandy areas of central Marshall and Kittson Counties, heavy infestations (15-50 per square yard) of Clear-winged M. bivittatus, and M. femur rubrum are present along road margins, and in alfalfa and grass fields. Where grass and alfalfa are being cut they are moving into oats and flax.**

Throughout the western Red River Valley area, M. bivittatus is the dominant species. Most infestations are light at the present time, but definitely on the increase along field margins and in alfalfa. There is a definite need for more control work.

Some heavy infestations up to 200 per square yard were found in Clearwater, Mahnomen, Clay, Wilkin, west Ottertail, Grant, Douglas, Todd, western Stearns, Pope, Swift, Kandiyohi, Meeker, McLeod and Carver Counties. Most of these infestations are M. femur rubrum and still in the nymphal stage. Many are in the 1st instar. It is believed that hatching will be completed in that area very soon.

Corn borers in various sections of Minnesota are gaining in prominence, although corn development is about a week ahead and the insect about a week to ten days behind its development at this time last year. A survey ending July 27 indicated the following percentages of infestation in these sections of the state: Central, 23%; West Central, 36%; Southwest, 62%; South Central, 47%; and Southeast, 34%.

Field crickets are very abundant in many parts of the state, especially in the Red River Valley and the west central counties.

## Japanese Beetles Become Troublesome in Virginia

BLACKSBURG, VA.—Japanese beetles are near the top of the list of insect enemies of Virginia farmers at this time. Arthur P. Morris, associate entomologist at Virginia Polytechnic Institute, reports that the beetles are feeding on silks of corn, ornamentals, grapes and other plants. They also are troublesome on truck crops and fruit trees in eastern Virginia.

Also currently troublesome is the green June beetle, reported as "swarming by the hundreds" over ladino clover pastures in some counties.

**Corn in many counties is the victim of earworms, southern cornstalk borers, corn sap beetles, and European corn borers.**

Green peach aphids are causing damage to tobacco, and farmers are advised to be on the lookout for them.

## Utah Experiencing Harm By Spotted Alfalfa Aphid

LOGAN, UTAH—The spotted alfalfa aphid is up to "destructive abundance" in southern Utah, for the second time this year, it has been reported by Dr. George F. Knowlton, Utah State Agricultural College entomologist.

Seed growers and feed producers in Millard County sprayed over 10,000 acres in an effort to control the aphid. The program was to be continued in other counties, including Beaver, Iron and Washington, Dr. Knowlton indicated.

## Grasshoppers and Aphids Prominent in Missouri

COLUMBIA, MO.—Damage from grasshoppers has picked up in several areas during the week. (Aug. 4) It could well increase considerably more within the next couple of weeks. Grassy areas around these fields intended for fall seedings of pastures, alfalfa, or small grains should be sprayed for hoppers now, if damage to the seedings is to be avoided.

Spotted alfalfa aphids are building up in some alfalfa fields. There are scattered fields where the populations are quite high, but other alfalfa in the immediate area may have a low population. Watch alfalfa carefully during the remainder of the summer and fall for a general increase in this insect. There is no way of knowing for sure how much build up may occur, but there's a chance of trouble developing.—Stirling Kyd and Geo. W. Thomas.

## Cotton Insects Make News in Arizona

PHOENIX, ARIZ.—Hot, humid weather punctuated by scattered showers prevailed throughout Arizona's cotton growing areas during the past week, (August 3) with some hail and lightning damage being sustained.

The insect picture in general shows no great change. Cotton in all counties continues to support large populations of Lygus, and bollworms are also quite bothersome in some instances.

**Fields throughout Pinal County are being dusted for Lygus but reinfestation is oftentimes very rapid. Quite often, the pests are moving into cotton from alfalfa fields that have started to dry up.**

Bollworms are also present in large numbers, with infestations bad enough to warrant control in many fields. In some cases, controlling for Lygus has kept the worm population down, but this pest bears watching. USDA workers have observed many eggs in some fields and report that predator populations have begun to decline. They have also noted widespread damage by leaf perforators.

In Graham County, high Lygus populations and scattered bollworm infestations are reported. Fields are presently being dusted by ground and air.

Lygus counts are increasing in Cochise County and some spider mites have started to show up, according to County Agent Carmy Page.

Lygus, bollworms, and leaf perforators continue to be troublesome in many areas of Yuma County.

**Lygus and bollworms still dominate the insect picture in Maricopa County, although stink bugs and woolly worms are active in some sections, according to Jim Carter, assistant county agent. Cabbage loopers, leaf perforators, and leaf rollers have also been observed in some fields. Lygus counts range from none to about 75 in all areas, with many fields being dusted. Excellent kills are being obtained in most cases. What few failures were reported are the result of insufficient material or poor timing. Apparently, some growers with skip-row cotton have ordered dust on the basis of planted acreage rather than gross acreage as recommended.**

As reported above, some growers are finding that insecticide applications fail to control pests. In many cases, this may be due to poor timing. Waiting until insect counts are extremely high is not the best policy.—J. N. Roney.

## Fire Blight Damages Wisconsin Orchards

MADISON, WIS.—A bacterial disease, "fire blight," is making considerable headway in Wisconsin apple orchards, according to plant pathologists at the University of Wisconsin. The blight infections will probably continue to invade apple trees for another three weeks or more unless the weather is fairly dry. Present spread of the disease was probably due to driving rain and wind storms of recent days.

Plant pathologists say that nothing can be done now to control the disease. Pruning out the blighted twigs and branches while it is still in the active stage may only serve to spread the infection.

## Corn Borers Prominent In New Jersey Report

NEW BRUNSWICK, N.J.—There has been a considerable amount of damage by European corn borer in field corn plantings. The first generation borers have been heavier than they have been reported for years. Federal workers report parasitization at a low level and the survey results forwarded in a previous newsletter from the New Jersey Dept. of Agriculture and the State Agricultural College indicate the same. This may be a factor in the upsurge of corn borer populations in addition to the hot dry weather which is also

(Continued on page 17)


**CHOOSE YOUR WEEDICIDE, INSECTICIDE OR FERTILIZER APPLICATOR EQUIPMENT**

from the Complete Broyhill LINE the name that means **CUSTOM QUALITY**

Tractor, truck and trailer mounted tanks and spraying equipment.

SEND TODAY FOR COMPLETE CATALOG No Obligation

The Broyhill Company
Dakota City, Nebraska

Gentlemen: Please send me your complete catalog for

☐ fertilizer applicator equipment ☐ weedicide, insecticide application equipment and parts

NAME .....

ADDRESS .....

TOWN or RFD ..... State .....

Team up your fertilizers with...

# Fertilizer Borate high-grade

THE LOW-COST EQUIVALENT OF BORAX FOR AGRICULTURE

MANUFACTURERS! DEALERS!

Borate your fertilizers... FOR INCREASED SALES AND BETTER CROPS!

**Specially developed for the Fertilizer Trade**

Here's borax at the lowest cost per unit ... it's FERTILIZER BORATE with higher analysis and lower unit cost. The high boron content of this product is readily available in a form ideally suited to agricultural requirements. You'll blend the FINE MESH with other plant foods for borated fertilizers and offer the COARSE MESH for direct applications.

Contains 13.6%

Equivalent to 121%

Equivalent to 44%

**You save on costs of storage, handling and transportation**

FERTILIZER BORATE—High Grade, because of its higher analysis ... and lower moisture content (5 mols) ... saves you important money. In formulating mixtures containing borax, only 82.9 lbs. of FERTILIZER BORATE-High Grade are required for each 100 lbs. of Borax that you guarantee. You figure the savings!

Other Borates you can offer for specific needs

**COLEMANITE-High Grade**...a slowly soluble lime borate for light and porous soils, or in regions of high rainfall. Content of $B_2O_3$ ranges from 32% to 35%. *Bulletin PF-2.*

**POLYBOR-2**...Highly soluble. Contains 20.5% Boron or 66% $B_2O_3$. Applies as a spray or dust; compatible with insecticides and fungicides currently in use and may be applied in the same solutions. *Bulletin PF-4.*

PACIFIC COAST BORAX CO.

MANUFACTURERS OF FAMOUS "20 MULE TEAM" PACKAGE PRODUCTS

Write to the office nearest you for information


AGRONOMIST DECLARES . . .

## Georgia Farmers Could Expand Income b $200,000,000 by Using More Fertiliz

Georgia farmers could increase their income by some $200,000,000 by following the fertilizer recommendations and other approved cultural practices outlined by the state experiment stations, P. J. Bergeaux, extension agronomist has estimated.

He has prepared a chart to indicate the potential of increased fertilizer use and expanded income for farmers who will fertilize their crops in accordance to the 1956 College of Agriculture recommendations. The chart, showing the effect of yield and income derived from using additional amounts of fertilizer, is shown here.

According to a county agent survey in 1955, 192,000 tons of fertilizer and 65,000 tons of 17% nitrogen side dressing were used on 890,000 acres of cotton; 441,000 tons of fertilizer and 187,000 tons of 20% nitrogen dressing used on 2,795,000 acres corn and 250,000 tons of fertilizer 95,000 tons of a 23% nitrogen dressing used on 1,226,000 acres temporary and permanent pasture

It is apparent from the accompa ing chart that the greatest poten in expanded fertilizer use is on p tures and corn.

Had the approved fertilizer r ommendations been carried out 1955 on cotton, corn and pastures, additional 1,258,062 tons of fertili and nitrogen materials would h been used which is just about dou the amount that was actually us By following the fertilizer reco mendations and other approved c tural practices, farm income can increased by over $200,000,000.

| CROP— | Additional fertilizer above that used** (in tons of 4-12-12) | Additional nitrogen above that used (in tons of 20% Nitrogen) | Possible increas Farmer income ab extra fertilizer co |
|---|---|---|---|
| Cotton* ..... | 97,000 | 52,000 | $ 24,920,000 |
| Corn ..... | 257,140 | 271,922 | 125,775,000 |
| Pastures ..... | 400,000 | 200,000 | 50,856,000 |
| Totals ... | 754,140 | 523,922 | $201,551,000 |

*Cotton calculated at 32c per lb. lint, corn at $1.50 per bu. and beef at 16c

**In 1955 Georgia consumed 1,299,654 tons of fertilizer including nitrogen and side dressing.

### Olin Mathieson Reports Sales Increase of 11% Over Last Year's Figure

NEW YORK—Olin Mathieson Chemical Corporation has reported domestic and Canadian sales during the six months ended June 30 of $300,050,408, an increase of 11% over the $270,800,964 reported in the first half of 1955.

Net income totaled $21,603,517, or $1.63 a share, compared with net income in the same period last year of $19,941,739, or $1.60 a share.

**For the three months ended June 30, 1956, Olin Mathieson's domestic and Canadian sales totaled $155,709,731, an increase of approximately 10 per cent over total sales of $142,103,684, in the second quarter of 1955.**

Net profit in this period rose to $11,523,418, compared to $10,998,502 for the second quarter of last year. This was an increase of approximately 5%.

Earnings in the past quarter equ ed 87¢ a share of common stock, co pared with 88¢ a share earned duri the second quarter of 1955 on a su stantially smaller average number shares outstanding.

During the second quarter, t board of directors declared a divide of 50¢ a share which was paid on Ju 9 to stockholders of record on M 17. The regular quarterly payment $1.0625 on the 4.25% convertible pr ferred stock was declared payable September 1 to stockholders of reco on August 17.

**PACKAGING MEETING**

MIAMI BEACH, FLA.—Numero prizes, including two all-expense day tours to Havana, will be featur of the sixth annual conference a exposition of the Produce Packagi Assn. at the Hotel Fontainebl Miami Beach, Fla., Sept. 23-26.

**RECEIVES COMMUNICATIONS AWARD**—Max D. Kirkland, New Jers extension service farm radio-TV editor at Rutgers University, New Brun wick, N.J., at the right, receives the American Assn. of Agricultural Colle Editors-National Plant Food Institute Agricultural Communications Awa at a recent special luncheon at Pennsylvania State University. Louis H. W son, secretary and director of information for the Institute made the pre entation, giving Mr. Kirkland a scroll signed by the national judges. T winner also received a check for $500 to be used for advanced professiona training in agricultural communications.

# WORLD REPORT

By GEORGE E. SWARBRECK
Croplife Canadian and Overseas Editor

## ...ian Fumigation

...fumigation station has com...nced operations at the Indian port ... Cochin. The first cargo to be ...igated consisted of American ...ton.

...ormerly, in the absence of a ...igation station, U.S. cotton in...ded for the Cochin area was not ...orted into the port directly, but ...s unloaded at Bombay for fumi...ion and transshipment to Cochin. ...though the Cochin fumigation fa...ties are now confined to cotton, ...y are likely to be extended to ...er commodities, incoming and ...tgoing, in the near future. Pepper ...s been a source of trouble in re...nt years.

...The question of arranging fumi...tion facilities for pepper has been ...fore the Indian government since ...53 as a result of frequent com...aints received from U.S. importers ...at pepper was insect-infested. The ...pper trade balked at the cost of ...fumigation plant but the difficulties ...ve now been solved.

## ...reek Nitrate Plant

...A joint technical and government ...mmittee has completed study of a ...oposal to build a nitrate plant in ...reece, capable of supplying all do...estic needs for fertilizers now and ... the foreseeable future.

...The Greek government proposes ... throw the contract for erection ... international competition. The ...st of the plant is estimated at $25 ...illion. The location will be in the ...tolemais area, where a major lignite ...velopment, producing nearly 200,-...0 tons a year, is already under way. ...erman capital, which is involved in ...e lignite development to the ex...nt of $3 million, is expected to ...tend its interest to the new nitrate ...ant which will process the lignite.

...It is estimated that the plant will ...roduce nearly 300,000 tons a year ... various ammonia fertilizers.

## ...apanese Advancement

...Japan is making rapid advances ... the chemical field, according to ...r. Robert S. Aries, chemical engi...eer and head of the New York con...ulting firm of R. S. Aries & Asso...iates.

...Dr. Aries has just returned from ... trip to Japan where he went at ...e invitation of Japanese chemical ...anufacturers for a study of the ...echnical and economic aspects of ...emical expansion.

...Chemical fertilizers enjoy relative ...rosperity in Japan, Dr. Aries re...orts. This is because of the inten...ve cultivation of the land. The use ... ammonium sulfate has increased ...om 1.5 million tons in 1950 to 2.2 ...illion in 1956; urea, he says, has ...egistered a spectacular gain of 150,-...00 tons in the last six years while ...he use of various phosphates now ...mounts to over two million tons.

...The chemical trade, Dr. Aries com...ments, is aiding in Japanese indus...rial advancement and he sees it ...laying an important part in world ...rade.

## ...otash Congress

...The 4th Congress of the Inter...ational Potash Institute, Berne, ...witzerland, was held in London Aug. ...-3.

...The congress was divided into ses...ions. Subdivisions included: "Potas...ium in Plants"; "Effect of Potas...ium", and "British Agriculture."

...Chairman of the congress was the ...ritish scientist, Sir John Russell. ...he meeting terminated with a visit to the Rothamsted Experimental Station on Aug. 3. In attendance were scientists from several countries.

## Fertilizer and Trees

Spectacular results from the use of fertilizers in tree culture are claimed by Canadian scientists. A chemical treatment which speeds the growth of tree seedlings and turns barren land into forests has been evolved at the forest school of Laval University, Quebec City.

The Canadian scientists, it is reported, are using the science of hydroponics to aid them in their work. The work has shown that seedlings can be chemically boosted in three or four months to a stage of growth normally reached after two years in the nursery, according to Dr. Andre Lafond, the school's research director.

Across Canada, in the heavily forested area of British Columbia, trees are reported to have improved greatly under chemical treatment. By varying fertilizers and analyzing soils, attempts are being made to find the best treatment for different kinds of soils. Involved in the experiments are MacMillan & Bloedel, Ltd. In the state of Washington, the Weyerhaeuser Timber Co. of Tacoma is also conducting fertilizer experiments and comparing results with the Canadian firm.

## Briefs . . .

Austrian trade sources say that the Austrian Nitrogen Plant exported 164,000 tons of fertilizer during the first quarter of 1956 compared with 99,000 tons during the first quarter of last year, an increase of 65%. The greater part of the increase was shipped to new customers in the Far East.

★ ★ ★

The Brazilian authorities have decided to prepare plans for the promotion of exports of phosphates from deposits located in Olinda in the state of Pernambuco.

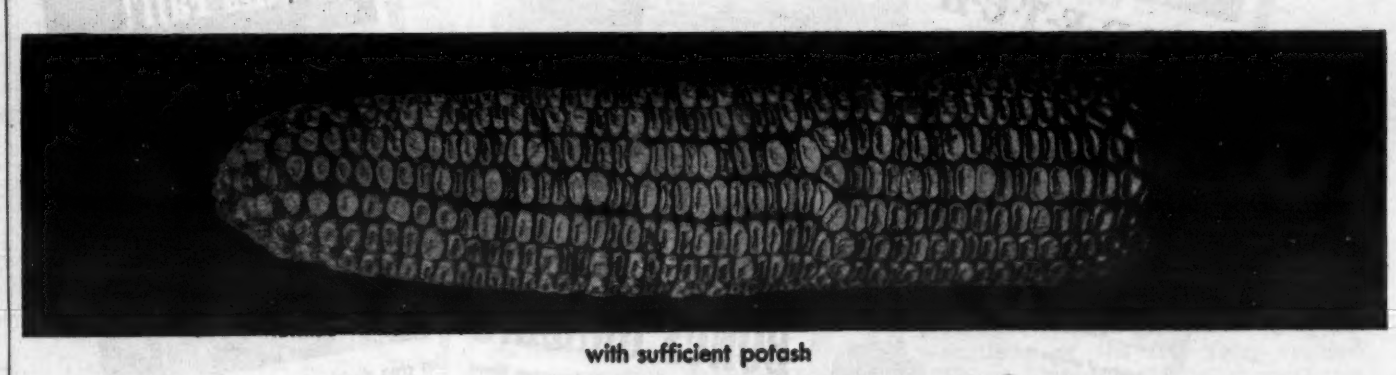
★ ★ ★

Communist China is reported by trade sources to have placed large orders in Western Europe for insecticides and plant protectants. Britain's share of the orders has been assessed at the equivalent of $5,600,-000, the bulk of it in the form of dusting powder from Imperial Chemical Industries, Ltd.

★ ★ ★

The Indian government plans to set up 10,000 cooperative societies to help farmers. Among the commodities to be handled are fertilizers and the farmers will be able to obtain credit against growing crops.


IN CORN, POTASH-ENRICHED FERTILIZERS MAKE THE DIFFERENCE



with sufficient potash

without sufficient potash

More and more farmers are learning that it requires balanced fertilizers to produce healthier, more vigorous crops. Potash, an essential ingredient of these balanced fertilizers, increases plant resistance to disease and improves both yield and crop quality.

USP's high-grade muriate of potash has the highest $K_2O$ content and is free-flowing and non-caking—important advantages in the manufacture of these modern fertilizers which help American farmers to better crops and better incomes.

UNITED STATES POTASH COMPANY
DIVISION OF UNITED STATES BORAX & CHEMICAL CORPORATION
30 Rockefeller Plaza, New York 20, N. Y.
Southern Sales Office
Rhodes-Haverty Building, Atlanta, Georgia

HIGRADE MURIATE OF POTASH 62/63% $K_2O$
GRANULAR MURIATE OF POTASH 60% $K_2O$ MIN.

REG. U.S. PAT. OFF.

## Soil Bank Cash Now Said to Reach Quarter-Billion

WASHINGTON, D.C. — Developments in the soil bank situation since last week indicate that nearly a half-million farmers, largely in the corn and wheat states, will receive Federal government checks in the amount of more than a quarter of a billion dollars this fall.

As outlined previously, only those farmers with corn "base" acreage allotments or those with wheat, cotton, rice, tobacco and peanut acreage allotments are eligible for soil bank participation.

The U.S. Department of Agriculture has made an analysis of how the farmers are participating in the various crop programs. For example, there have been signed nearly 283,000 soil bank contracts in the commercial corn belt representing a federal cash payment distribution of approximately $150 million. The participation in the corn phase of the soil bank program is asserted to be land under cultivation in oats where that latter crop has been clipped.

**For wheat the acreage involved is larger, the number of individual contracts between farmers and the soil bank lower, and the overall cash bounty which those farmers will obtain substantially less than for the corn program. The amount of money involved in future cash payments to wheat farmers for about 97,000 individual contracts, is stated by USDA as about $40 million.**

This lower level results since the wheat payment bounty reflects per acre payments of between six and eight dollars per acre for drouthed-out or blown-out wheat land largely in the hard winter wheat states.

The peanut and rice crop participation in the soil bank is negligible with little more than $1.75 million in payments to soil bank cooperators.

**In the cotton belt, approximately 90,000 farmers signed up with the soil bank involving slightly more than a million acres which will amount to federal cash distribution of more than $25 million.**

The tobacco program of the bank offers about 18,000 farmers who have contributed over 30,000 acres to the program and will in return obtain about $6.33 million.

### ALLIED APPOINTS J. E. SHAND

NEW YORK—The appointment of James E. Shand as assistant manager, chemical sales, has been announced by Barrett Division, Allied Chemical & Dye Corp. He succeeds Richmond C. Quortrup who died in May of this year. Mr. Shand has been with Barrett since 1946.

## Explosion of BHC Plant Kills Three

NIAGARA FALLS, N.Y.—An plosion of undetermined origin A 6 destroyed the plant of the Mathieson Chemical Corp. produc benzene hexachloride and inse cides.

The blast, which rocked this dustrial city of 100,000, caused th deaths and injured 16 persons. Th buildings were affected by the plosion and subsequent fire wh spread through the area. Total da age to the structures and equipm had not yet been determined at pr time.

**Olin Mathieson officials, eng neers and specialists are current meeting to outline the firm's cour in establishing BHC facilitie However, it probably will be som time before a final decision is ma and an announcement issued.**

A team of engineers, plant s cialists and insurance experts ha started an investigation to determi the cause of the explosion. Accordi to Joseph E. Baker, director of op ations, in an investigation of th type all debris must be complete analyzed so it may be some time b fore the definite cause will be know

The three employees killed we John Maule, Jr., 32, Herman Stra low, 29, and Francis Kramarick, 2 The first two were dead on arrival a hospital and third died the ne day.

## USDA Consolidates Forest Pest Control Over Broad Area

WASHINGTON, D.C.—All contr work on forest insects and diseas has been consolidated into one div sion of the Forest Service, the U. Department of Agriculture has a nounced.

This new division of Forest Pe Control will be responsible for th department's activities in controllin insect infestations, disease epidemic and white pine blister rust control o federal, state, and privately owne forest lands. Warren V. Benedict, fo merly in charge of the white pi blister rust control program, wi head the new division.

**But since most of the work will be done cooperatively with state foresters and other public agencies or private land owners, the division will be under the general supervision of William S. Swingler, assistant chief of the Forest Service in charge of cooperative programs.**

"This consolidation is part of a increased effort to reduce the tr mendous timber losses from fore pests," Mr. Swingler said. "It too the recent Timber Resource Revie to dramatize the damage insects an diseases inflict upon our timber re sources. Insects kill outright 7 tim as much timber as fire, and diseas 3 times as much. Forest pest contr today is where forest fire control w 25 years ago. The big job before t is to reduce pest losses as much we have fire losses."

Assisting Mr. Benedict in work the new division will be Conrad Wessela, formerly in charge of blist rust control work in the Pacif Northwest Region of the forest se vice, and Russell K. Smith, form supervisor of the Nebraska Nation Forest at Lincoln, Neb.

### TREE SPRAYING SUCCESSFUL

COLUMBIA, S.C.—The tree div sion of the City of Columbia h completed the foliar fertilization 30,000 trees. W. A. Shields, superi tendent of the division, reports th results have been "wonderful" an that the process has proved to b economical. A side result, accordi to Mr. Shields, has been a substa tial reduction in the incidence scale in the city's trees.


***Watch For These 3 Hard-Selling Phillips 66 Ads...***

# TO HELP YOU GET MORE FALL BUSINESS!

Good pasture management calls for balanced fertilization—including phosphate, potash and other minerals, in addition to nitrogen.
S-T-R-E-T-C-H GREEN FEED
Apply Phillips 66 Ammonium Nitrate on pastures this fall for increased beef and milk gains at lower cost:
Following good pasture management practices, apply Phillips 66 Ammonium Nitrate on your permanent pastures this fall. You'll get extra weeks of grazing this fall and next spring. Grasses will be richer in protein, more succulent and palatable.
Your biggest reward will be faster and bigger beef and milk gains at a lower production cost per pound—because grass forage is your cheapest source of feed.
If your soil tests show that your pastures need fertilizing, see your fertilizer dealer right away. For the nitrogen you'll need for lush, protein-rich grazing, be sure to specify Phillips 66 Ammonium Nitrate, the 33½% nitrogen fertilizer.
Benefits of nitrogen on fall-seeded grains:
Higher yields, for increased profit per acre.
Extra weeks of pasture, fall and spring.
Richer protein forage, winter left.
Phillips 66
PHILLIPS 66
AMMONIUM NITRATE
Available in 80 and 100 lb. polyethylene lined bags.
PHILLIPS CHEMICAL COMPANY
A Subsidiary of Phillips Petroleum Company
Bartlesville, Oklahoma
Good pasture management calls for balanced fertilization—including phosphate, potash and other minerals, in addition to nitrogen.
"BONUS" GRAZING
How fall application of Phillips 66 Ammonium Nitrate can stretch small grain pasture for extra profit:
There's a big bonus in applying nitrogen in the fall to your small grains. The young plants will respond with hardy and vigorous growth, so that you can pasture your animals earlier and longer.
The helps to cut dry feed bills. And, because the nitrogen increases protein content in the plants, you will get faster and bigger beef and milk gains—at a lower production cost per pound.
The increase in profit per acre from your harvested grain
big reason for applying nitrogen in the fall. But it will also pay you to think about the "bonus" grazing you can get by putting down plenty of nitrogen on your fall-seeded grains.
Benefits of nitrogen fall-applied on pastures:
Bank Nitrogen This Fall!
Get crop dividends next year—plow down Phillips 66 Ammonium Nitrate this fall:
AUG.
SEPT.
OCT.
PRILLED AMMONIUM NITRATE FERTILIZER
AMMONIUM NITRATE
NITROGEN 33.5%

**PHILLIPS 66 FALL ADVERTISING WILL REACH 4,625,000 FARM READERS**

Fall business is plus business—and Phillips *66* is out to help you get more of this end-of-the-year profit. Convincing ads like these demonstrate to your best prospects that they can profit by fall application of fertilizer.

Look for the message in these ads that sells balanced fertilization—and mixed fertilizers. Another Phillips *66* extra to make your selling job more profitable.

**A companion high nitrogen fertilizer for your quality mixed goods.**

**PHILLIPS CHEMICAL COMPANY**

**A Subsidiary of Phillips Petroleum Company, Bartlesville, Oklahoma**

**Offices In:**

AMARILLO, TEX.—*First Nat'l Bank Bldg.*
ATLANTA, GA.—*1428 West Peachtree Street*
BARTLESVILLE, OKLA.—*Adams Bldg.*
CHICAGO, ILL.—*7 South Dearborn St.*
DENVER, COLO.—*1375 Kearney Ave.*
DES MOINES, IOWA—*6th Floor, Hubbell Bldg.*
HOUSTON, TEX.—*1020 E. Holcombe Blvd.*
INDIANAPOLIS, IND.—*1112 N. Pennsylvania St.*
KANSAS CITY, MO.—*500 West 39th St.*
MINNEAPOLIS, MINN.—*212 Sixth St. South*
NEW YORK, N. Y.—*80 Broadway*
OMAHA, NEB.—*6th Floor, WOW Building*
PASADENA, CALIF.—*330 Security Bldg.*
RALEIGH, N. C.—*804 St. Mary's St.*
SALT LAKE CITY, UTAH—*68 South Main*
SPOKANE, WASH.—*521 E. Sprague*
ST. LOUIS, MO.—*4251 Lindell Blvd.*
TAMPA, FLA.—*3737 Neptune St.*
TULSA, OKLA.—*1708 Utica Square*
WICHITA, KAN.—*501 KFH Building*

Special Retail Section

# Better Selling

Richer Fields for Dealers

**A SPECIAL CROPLIFE DEPARTMENT TO HELP RETAILERS IMPROVE MERCHANDISING KNOW-HOW**

## New Model Store Building Of Alabama Firm Designed For Customer Convenience

By AL. P. NELSON
Croplife Special Writer

When it comes to a model farm pply store, one would need to look long time before he could find a tter one than that of Farm Supply ., Livingston, Ala. The owners are L. Tucker and Jo C. Tartt. They ve been in the farm supply business r quite a while and erected their w quarters, planning for a long me occupancy.

The dimensions of the new building e 55 by 70 ft. It is built of concrete ock and steel and has a concrete oor throughout. There are high rive-in doors on one side and at the ar. This means that trucks can me in and out to unload or load, a ry handy labor saving feature and so conducive to trading on rainy ys.

**The showroom of the store, which s a model in itself, measures 40 ft. n width and is 20 ft. deep. There re two large display windows with n entrance in the center of the pace. A red, metal canopy covers he entrance and window area, and he bright color contrasts beautifully with the white painted concrete blocks.**

All the walls of the showroom have en covered by white, knotty pine. he paint treatment for the walls nsists of a coat of white shellac. fter this shellac dried, a coat of ght green paint was applied and rubed down considerably. When this ried, then a coat of clear varnish as applied. This soft green color, hrough which the shellacked pine ows is very attractive and excelnt for display.

On several of the walls, Mr. Tucker nd Mr. Tartt have erected perforated oard display sections. These sections, oo, are painted a light green to harmonize with the walls. On some of the ections hang farm tools, pet supplies and other items which farmers nd gardeners and homeowners need. his is an excellent way to display uch items, for it brings them into the oreground of the traffic.

The main wrapping counter of the ew store is directly back from the main entrance. Shelving behind the counter carries insecticides, sprayers and other products which the store sells. Field and garden seeds and plants are also stocked. Both Mr. Tucker and Mr. Tartt own farms and they know how important good seed is. They carry quite a stock of hybrid seed corn which is helping the southern farmer increase his per acre corn yield from about 20 to 65 bu. per acre and more. Fertilizer plays an important part in this bigger yield, Mr. Tartt reports.

This firm sells both dry and bulk fertilizer. It has one bulk spreader and the charge for spreading is about $3 per ton. For cotton, fertilizer of 6-8-4 and 4-10-7 are used in this area, while 4-12-12 is used on corn. Corn is also sidedressed during the growing season. Many farmers are fertilizing their pastures, as they raise many heads of beef cattle and need constant forage for them. Pastures take 0-16-8 and 0-14-14 in this area, Mr. Tartt reports.

The bag fertilizer is stored in the firm's main building, but the bulk stock, along with loading machinery is in another structure nearby. The firm sells over 2,500 tons of fertilizer annually.

**"There is an increase in the amount of fertilizer sold in the fall," says Mr. Tartt. "A great deal of this tonnage is for pastures. Well fertilized pastures mean more grazing for cattle when warm weather comes in January and February and March in this area, and this means more weight gain for the cattle."**

The store advertises in two county papers most weeks of the year. In addition, special letters are sent to selected customers and prospects on feeds, fertilizer and other products. Occasionally, too, small colored handbills will be mailed to select lists.

One such recent handbill carried the following copy, "See us for your requirements in baby chicks, Wayne Feeds, poultry supplies, bulk garden seed, field seed, farm hardware, fertilizer, soda, ammonium nitrate, vaccine and supplies, cattle salt and other items . . . "

**ALABAMA DEALER—Jo C. Tartt, one of the owners of Farm Supply Co., Livingston, Ala., is shown above behind the counter in the firm's new store. Note the neat shelf displays behind the counter.**

SHOP TALK

## OVER THE COUNTER

FOR THE DEALER

By EMMET J. HOFFMAN
Croplife Merchandising Editor

It is always of interest to find out what promotional ideas other fertilizer dealers uncover to increase business. Often the ideas that work for others can be used just as successfully by the dealer or modified as needed to produce equally good results.

Dealers handling fertilizers made by the Nichols Fertilizer & Chemical Co., Oklahoma City, report excellent success with their spring sales promotion built around the firm's Scotch plaid trademark.

"Skotch Plaid" is the trade name of the Nichols Seed Co., with which the fertilizer company became affiliated last spring when Nichols Fertilizer & Chemical Co., entered the fertilizer business for the first time. The idea to use "Skotch" products, such as food and beverage coolers, grills and other picnic products in gay red plaid colors, as premiums was developed.

**SALES CLIMB — Eddie Lightner, Oklahoma County, Oklahoma, farmer was among those who were given coolers for quantity fertilizer purchases during the past spring. Presenting the "Skotch Plaid" cooler is Earl Nichols, president, Nichols Fertilizer & Chemical Co., Oklahoma City, originator of the promotion for its dealers. The promotion, according to participating dealers, encouraged early fertilizer sales and produced very satisfactory sales results.**

**The campaign was launched in February. A cooler or grill was given with the purchase of a ton of fertilizer. The offer was advertised by the dealers as being "for a limited time only" to encourage early customer action and early buying. This, Nichols officials say, succeeded very well.**

Dealers were supplied with mailing pieces outlining the free offer. Tie-in mats were sent to dealers to help them publicize the offer.

Point-of-purchase pieces were prepared, including window streamers, door stickers, wrap-around strips for product bags and interior banners. Advertising was placed with newspapers, farm magazines and radio and television stations throughout Oklahoma and parts of Texas and Kansas. Nichols officials say that advertising of the free offer stopped March 31 but the demand continued for at least six weeks.

To further stimulate interest in sales, a contest for dealers accompanied the promotion. First prize for the dealer selling the most fertilizer was a new automobile. Every dealer earned some type of premium for all sales, regardless of where they finished in the contest.

Plans have been completed for the fall fertilizer sales push by the firm's dealers and again a concentrated advertising and sales promotion program is in the works.

## Alabama Retail Dealer Likes Small Lot Sales

There is an increasing number of small lot fertilizer customers in many parts of the country, and J. P. Robinson, who owns the Robinson Co., York, Ala. likes this type of trade. One reason why he likes it is that these sales are mostly for cash. Also, the man who buys a small bag of fertilizer (50 lb.), $3 worth of seeds, etc. will very likely be back during the season to buy vegetable plants, a sprayer and insecticides.

In the fall such a customer may buy flower bulbs, more fertilizer for his lawn, leaf rakes and other items.

"There are many people living in this area who have large lots, some of them a half acre," he states, "and they have large gardens and lawns. They buy many items from us, and they are good customers year after year."

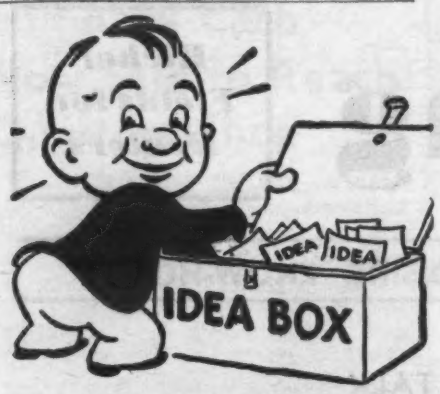
Small lot business, Mr. Robinson states, involves packaging some materials in spare time from 5 lb. and up, especially in fertilizers and feeds. But this pre-packaging pays when the rush season starts, as customers can be served quickly.

"We also sell fertilizer to some farmers," Mr. Robinson says, "but we are too small to go after the big tonnage where large discounts are involved. We like to sell what fertilizer we can at regular profit margins and let the other fellow take the cut price deals, involving delivery."

## Fertilized Cotton Remains Good in Mississippi

STATE COLLEGE, MISS.—Rainfall and moisture conditions for the remainder of the month and September will determine crop production and yields in Mississippi, according to the Mississippi extension service. Where ample fertilizer was used under the cotton, it is holding up well, extension officials report.

General rains are needed in a large part of the state, and corn especially needs moisture although the crop generally is above average in many counties.




# What's New...

## In Products, Services, Literature

**You will find it simple to obtain additional information about the new products, new services and new literature described in this department. Here's all you have to do: (1) Clip out the entire coupon and return address card in the lower outside corner of this page. (2) Circle the number of the item on which you desire more information. Fill in your name, your company's name and your address. (3) Fold the clip-out over double, with the return address portion on the outside. (4) Fasten the two edges together with a staple, cellophane tape or glue, whichever is handiest. (5) Drop in any mail box. That's all you do. We'll pay the postage. You can, of course, use your own envelope or paste the coupon on the back of a government postcard if you prefer.**

### No. 6450—Granulation Unit

A new brochure describing the Feeco granulation unit manufactured by the Fertilizer Engineering & Equipment Co., Inc., is available without charge. The brochure describes the general operating features and flexibility of the dryer-cooler combination unit, as well as general specifications and installation notes. The unit includes dryer drum, spur gear drive, trunnion base, heavy duty bearings and chilled wheels, hammer lifts, hammers, intake and discharge hoppers, heavy steel framework, cooler drum with drive, high capacity-low velocity fans, ductwork, cyclones, necessary support steel and high resistance type pyrometer with six-point selector switch. Over-all length of the unit is 32½ ft. The brochure will be mailed if you will check No. 6450 on the coupon and mail it to Croplife.

### No. 6453—Insect Handbook

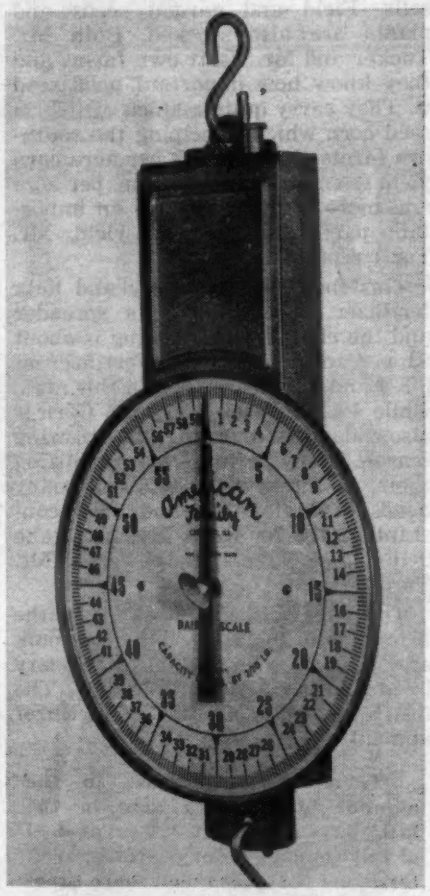
A publication called "Insect Control Handbook" has been prepared by Successful Farming magazine for dealer distribution. Quantity orders will be accepted and for a nominal charge the name of the company can be imprinted on the back cover. The handbook was written by J. H. Lilly, Iowa State College, for the magazine's publisher, the Meredith Publishing Co. Included in the handbook are sections devoted to general feeders, corn insects, forage legume insects, soybean and small grain pests and sorghum insects. The handbook is intended for use by the farmer in controlling various insects. For price and other information check No. 6453 on the coupon and drop it in the mail.

### No. 5416—Manlift Bulletin

Construction features and applications of the company's manlift for inter-floor transportation are described in a new bulletin prepared by the Allis-Chalmers Manufacturing Co. The manlift is also designed to convey bags and other packed materials and can be furnished with steps and bag carriers alone or in combination. The bulletin is available without charge. Check No. 5416 on the coupon, clip and drop it in the mail.

### No. 5415—Farm Scale

A newly-designed farm scale suitable for handling by feed dealers has been designed by the American Family Scale Co. for dairy and poultry farmers and other general use. The scale is claimed to have an easily



adjustable pointer to make quick allowances for tare weight of weighing trays, milk pails and feed containers. Capacity is 60 lb. by 2/10th lb. plus a 15-lb. allowance for tare weight, or a total of 75 lb. Trade-named the American "75," it has a white dial face with a diameter of 7 in. and large numbers. The finish is gray Hammertone and all working parts are specially treated to prevent rust. Secure more complete details and information about distributorships by checking No. 5415 on the coupon, clipping and mailing it to this publication.

### No. 6451—Irrigation

A new booklet, "Farm Irrigation in Michigan - Pennsylvania - Ohio," has been published by Capper-Harman-Slocum, Inc., and is available without charge. Figures concerning crop production, irrigated acreage and pasture land are the latest available for the three states, according to the company's announcement. To secure the booklet check No. 6451 on the coupon and mail it to Croplife.

### Also Available

**The following items have appeared in the What's New section of recent issues of Croplife. They are reprinted to help keep retail dealers on the regional circulation plan informed of new industry products, literature and services.**

### No. 6448—Sales Aids

Anhydrous ammonia sales aids, comprising newspaper mats, display banners, posters, radio commercials and promotional literature are available to dealers from the Agricultural Ammonia Institute. A nominal charge is made for some of the sales aids, according to institute officials. Secure more complete details and price quotations by checking No. 6448 on the coupon and mailing it to Croplife.

### No. 6449—Soil Sterilant

A six-page leaflet which outlines the various methods by which the soil sterilant, trade-named Vapam, may be used to destroy weeds, fungi, nematodes, and soil insects has been published by Stauffer Chemical Co. The leaflet details the types of pests which the water-soluble soil sterilant will control and how it may be applied by hand, sprinkler, injection plow sole and in irrigation waters on soils for preplant treatments of seed beds, potting soil, ornamentals, nursery stock, field crops, row crops, orchards, vineyards, turfs and lawns. Copies are available without charge. Check No. 6449 on the coupon and mail it to Croplife.

### No. 5506—Conveyor

A new bulletin by Alvey Conveyor Mfg. Co. describes the application of its automatic Vertical Reciprocating conveyor for use in multi-level handling of palletized cases. The unit is self-loading and self-discharging. It automatically transfers palletized cases up or down, to any predesignated floor level, it is claimed. Complete controls and safety devices are incorporated in a fully integrated installation, the bulletin points out. The four-page illustrated bulletin, No. ALV-130, will be mailed without charge if No. 5506 is checked on the accompanying coupon and mailed to this publication.

### No. 6445—1-Ton Shipping Containers

A new 24-page booklet describes 1-ton shipping containers produced by the Columbiana Boiler Co., Steel Plate Fabricating division, for handling liquefied and compressed gases and chemicals such as liquid chlorine, anhydrous ammonia, sulphur dioxide and other commodities requiring ICC specification containers. The booklet includes recommendations of the Chlorine Institute for safe handling with a special section on employees' protection. Institute tables and charts give characteristics of liquid chlorine including density and pressure at temperatures F., and solubility in water and other solvents. Plant photos illustrate the manufacture and usage of the firm's containers, storage vessels, galvanizing and tinning kettles and motor cargo, portable and skid tanks. A special feature describes the delivery and use of anhydrous ammonia as soil fertilizer with Columbiana containers. To secure the booklet check No. 6445 on the coupon and mail it to Croplife.

### No. 6444—Potash Mining Booklet

The National Potash Co. has prepared a booklet describing its project to produce potash near Carlsbad, N.M. Titled, "A Basic New Source of a Basic Plant Food," the booklet tells how the company will begin mining in January, 1957, muriate of potash from its $19,000,000 plant with an annual capacity of 400,000 tons. Also described is the company's offer of assistance in the form of free technical service to assist fertilizer manufacturers in the problems of granulation and in other production difficulties. The booklet may be secured by checking No. 6444 on the coupon and mailing it to Croplife.

### No. 6443—Soil Fumigant

A product, called by the trade name, Vapam soil fumigant, is being offered by the Du Pont Company. According to company spokesmen

**Send me information on the items marked:**

- ☐ No. 5506—Conveyor
- ☐ No. 5509— Tail Gate
- ☐ No. 5415—Farm Scale
- ☐ No. 5416—Manlift Bulletin
- ☐ No. 6443—Soil Fumigant
- ☐ No. 6444—Potash Booklet
- ☐ No. 6445—Containers
- ☐ No. 6446—First Aid Catalog
- ☐ No. 6447—Science Booklet
- ☐ No. 6448—Sales Aids
- ☐ No. 6449—Soil Sterilant
- ☐ No. 6450—Granulation Unit
- ☐ No. 6451—Irrigation
- ☐ No. 6453—Insect Handbook

NAME .....

COMPANY .....

ADDRESS .....

—————SLIP OUT—FOLD OVER ON THIS LINE—FASTEN (STAPLE, TAPE, GLUE)—MAIL—————

FIRST CLASS
PERMIT No. 2
(Sec. 34.9, P. L. & R.)
MINNEAPOLIS, MINN.

BUSINESS REPLY ENVELOPE
No postage stamp necessary if mailed in the United States

POSTAGE WILL BE PAID BY—

Croplife

P. O. Box 67,

Reader Service Dept. Minneapolis 1, Minn.

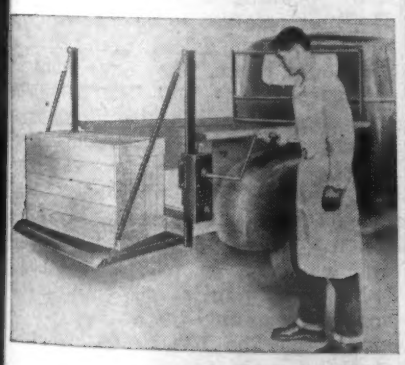
e chemical when applied to moist l before planting, forms vapors hich kill or suppress many types of lesirable organisms, including weed dlings, certain soil insects, fungi d nematodes. It is recommended as ore-planting treatment for soil in nt propagation beds (ornamentals d vegetables), in new turf areas d in fields for ornamental plants. e product can be mixed with water d applied as a surface spray with sprinkling can, hose proportioner overhead sprinkler. Additional tting after application seals the emical in the soil. It may also be aced at depth in the soil by being rayed on the plow sole or injected th standard fumigation equipment. o secure more complete details eck No. 6443 on the coupon and ail it to Croplife.

## No. 6447—Science in Industry

Six scientific principles and six inentions that reshaped civilization re described in "Science in Indusy," a new booklet issued by the Du ont Company. The principles are instein's theory of relativity, Laoisier's analysis of the composition f air, Newton's law of universal ravitation, Darwin's theory of evolution, Pasteur's theory of bacteria, and opernicus' concept for the solar system. The six inventions include: The irplane, the telephone, the steam enine, movable type, the automobile, nd the clock with interchangeable arts. Also shown in the booklet are ix of the great monuments to science nd invention: The Roman aqueduct t Nimes, the Hoover Dam, the Empire State Building, the Panama Canal, the Savannah River atomic energy plant, and a Detroit automobile assembly line. To obtain the booklet check No. 6447 on the coupon and mail it to Croplife.

## No. 5509—Elevating Tail Gate

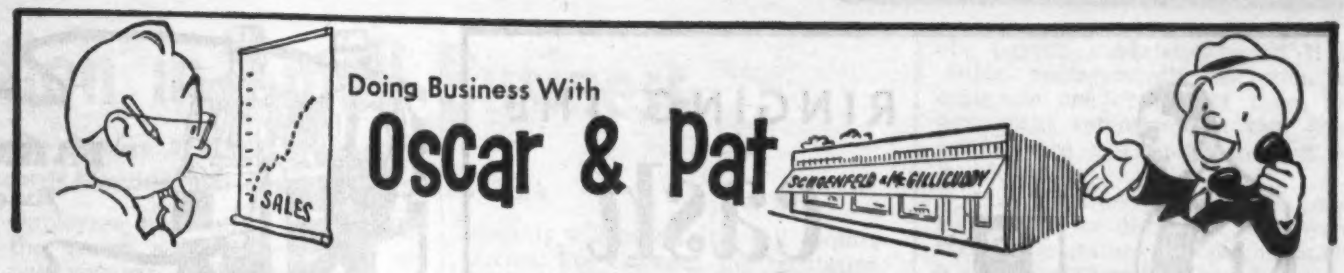
Mid West Body & Manufacturing has announced its new "Jiffy-Lift" elevating tail gate for pickup and



express truck bodies. The product is a completely "packaged" kit, ready to install. It weighs 175 lb. and only six bolts are needed for installation. The all-steel, ramp-type elevating tail gate has a capacity of 600 lb. The patented design features a lifting mechanism, having ball bearings throughout for easiest operation, company spokesmen say. Secure more complete details by checking No. 5509 on the coupon and mailing it to this publication.

## No. 6446—First Aid Catalog

A new 6-page first aid catalog is available from the E. D. Bullard Co. With it comes a card titled, "Instant Guide to First Aid." It contains information on first aid treatments and folds to fit into a wallet or purse. The catalog contains a listing of over 100 unit packs, photographs of kits, catalog numbers and descriptions of kits and units for ordering purposes. Check No. 6446 on the coupon and mail it to secure the literature.




Doing Business With

# Oscar & Pat

By AL. P. NELSON
Croplife Special Writer

In the office of Schoenfeld & McGillicuddy, farm supply firm, there was a large wire basket into which outgoing mail was placed. Whoever happened to be going downtown, usually picked up the mail from the basket and deposited it in the big mailbox at the street corner.

As Pat McGillicuddy came in after lunch, he passed the spot where the mail basket stood. From habit, he looked at the outgoing mail stack. Suddenly his blues eyes looked puzzled. He stopped, thumbed through a stack of letters. About six envelopes had brown labels evidently covering an address, and the envelopes themselves looked like they had been roughed up considerably. And what bothered Pat was that each envelope was addressed to a customer.

**"Tillie," he asked, "are we all out of envelopes with our firm name in the corner? My heavens, why do we use these old battered envelopes, with ugly brown tape pasted over the middle and the left hand corner?"**

Tillie, the plump, nervous bookkeeper who was inclined to ulcers, looked at Pat, and then at balding, businesslike Oscar Schoenfeld who sat at his desk figuring discounts. Apparently Oscar knew he was the subject of thought, and he looked up. "No, we are not out of printed envelopes. I am just using up some old envelopes we have accumulated. Ach, some of them have stamps on that companies sent us thinking we would reply to their sales letters. Why waste stamps and envelopes?"

"But—but these envelopes are addressed to customers!" Pat exclaimed. "We want to make a good impression on our customers. What will they think if they get a letter from us in such a battered, old envelope?"

Oscar smiled thinly. "I don't care what they think. I send those envelopes to customers who are slow in paying us for fertilizer. Maybe those envelopes will shame them into paying."

Pat's lean face went a little white. He hung up his white Panama, came to his desk and sat down facing Oscar.

"How long have you been doing this?" he asked.

"How long? Oh, for a couple of years. Think of what I have saved us in all that time. Somebody has to save money around here, don't they? Especially with you spending so much on foolish promotions all the time. I don't believe in wasting things."

"I know that," Pat said slowly, "but there is a limit to saving when it comes to dealing with a customer. Heavens, we should be ashamed to send out letters in envelopes like that." He turned to Tillie. "Re-address those letters in fresh, printed envelopes, please."

Now it was Oscar's turn to show anger. "What's wrong with sending those—those welchers old envelopes? The trouble with you is that you spend and spend and never figure out if we are going to make a profit. Ach, all you think is sell, sell, sell. And I want to collect, collect, collect."

"But there is such a thing as pleasing customers, making friends and building good will!"

Oscar snorted. "The only way to build good will is to pay your bills. I found that out. Lots of those fellows who slap you on the back so much and grin owe so much they'll never get paid up."

"Meaning—" Pat asked quietly.

"I ain't mentioning names, but I can tell you Minnie and I saved lots of money all these years using old envelopes with stickers on. We send them to relatives when we want to write, and to the minister and when we pay bills by check. If everybody saved like we do—"

**"Sure, begorra, if everybody saved like you do, this country would stagnate," Pat interrupted angrily. "Nobody would ever invest money in a new enterprise, the whole system of credit would break down. If everybody adopted your policy and paid cash for everything this fertilizer business would only do half the volume it's doing. You're too old fashioned, Oscar. Wake up. Things are different in this country than when you started to work years ago."**

"And things are worse, if you ask me," Oscar growled. "There is nobody going to take care of me, or you, either, when we get old. We have to take care of ourselves out of what we have saved."

"Plus social security," Pat put in.

"Ach, that will go bust, too," Oscar snapped. "I don't trust nobody on money, only myself."

Pat McGillicuddy laid down his pencil. "Well, you can think what you like, Oscar, but I do not want you to use old envelopes when writing to our customers. They must be new ones."

"And if I refuse!"

Pat smiled. "Then I will have some real expensive ones printed in two colors. They will cost maybe 40% more than the plain black and white printing we are now using on envelopes."

Oscar paled. "Ach du lieber, you wouldn't do that? We do not need such fancy stuff in this business. We—" he hesitated. "All right, I give in this time. But I will find another way to save. McGillicuddy, I can't understand people like you. Money burns a hole in your pocket day and night. Someday you will learn, when it is too late, and ach, then—"

"Oscar," Pat said gently, "why don't you listen to me? Live it up a little. You might have some fun once in a while, if you do."

Oscar said nothing, but instead he bent down eagerly and retrieved a rusty paper clip from the floor and tossed it into the big glass bowl on his desk.

**FAMILY NIGHT**—The Glenarm (Ill.) Grain Co. stages an annual "family night" for its customers and here is shown square dancing activity during the recent event. This year's "family night" was attended by over 600 persons. The program includes no sales talks; instead there are brief introductions, awarding of prizes, entertainment, lunch and dancing. The idea was born seven years ago and is now firmly established as an annual event. The firm's owners, Roger O'Keefe, and his father, Arthur O'Keefe, cooperate with fertilizer, feed, seed and other suppliers in setting up booths and displays which guests may visit but no effort is made to sell visitors. Nevertheless many orders are voluntarily left with the O'Keefes and many more result in the days following "family night."

## Chemical Firm Adds 35% To Sulfuric Acid Output

GARFIELD, UTAH—Garfield Chemical and Manufacturing Corporation, a jointly owned facility of American Smelting and Refining Company and Kennecott Copper Corporation, is expanding production of sulfuric acid to 1,100 tons a day by constructing its fifth contact process sulfuric acid plant at Garfield, Utah.

The new plant is located at the Garfield Smelter of American Smelting and Refining Company and is operated by ASARCO personnel. It uses as raw material sulfur dioxide gas produced by the Garfield Smelter copper converter operation.

### FUMIGATION PAYS

CLEMSON, S.C.—O. R. Bishop, Frogmore, S.C., reports that the use of soil fumigants increased his tomato yield by at least 100 bu. this year.

## FALL, WINTER CROPS

**"We recommend fall fertilization under crops which grow in late fall and winter. These crops include the small grains, rye grass, fescue and winter legumes."—C. Dale Hoover, head, department of agronomy, Mississippi State College, State College, Mississippi.**

# RINGING THE cash register

## Merchandising Hints for The Retailer

### Stir Up Interest

With a presidential election coming up, retailers might consider an election guessing contest as a store "conversation stunt." Merchants who have staged such a contest find that as the election draws nearer, traffic becomes heavier. The contest might include picking the president, vice president, senator, representative and, if you want to make sure there are no ties, ask contestants to pick a few state or county winners. Offer prizes—perhaps of $25, $15, $10 and $5 for the four top winners—and be sure to let the local newsman know about the contest. Here's a tip: Have the entries placed in a sturdy ballot box so as not to lose a single ballot.

### Full Stock Ranks First

**A group of retailers was asked in a merchandising survey to rank in order of importance the merchandising techniques which they consider necessary in order to establish a sound, full-scale sales program for animal health products. Here are the techniques, in order of the number of times mentioned by the retailers:**

- **Maintain a complete stock of animal health supplies, including all new items for which there is a local need.**
- **Display animal health products prominently.**
- **Keep farmers informed on the wide range of merchandise and the new products you carry by means of direct mail, radio, newspaper and TV advertising.**
- **Follow through on advertising with animal health window displays.**
- **When farmers come into the store, mention new animal health products or established products that are effective.**
- **Keep well informed on up-to-date practices in animal health matters so that you can provide expert guidance to the farmer.**
- **Make sure farmers know of your personal interest in their problems. Join their associations, visit them on their farms, cooperate with local agriculture agencies and in general become well-known to the farmer.**
- **Maintain a library of animal health literature which you and the farmer can consult.**
- **Distribute animal health literature and promotional literature as package inserts in all departments and in your monthly statements.**
- **Where possible, make sure that your prices are competitive.**

### Popular Event

A balloon-popping event highlighted the housewarming staged by Brunswick Supply, Lawrenceville, Va., to celebrate the completion of its new sales display room. Balloons were hung from the ceiling. When the customer made a purchase he popped a balloon—all containing numbers. The number indicated the discount to which he was entitled on further purchases.

### Stretch Your Ad Dollars

**Here are two suggestions for stretching advertising dollars. First, run tie-in ads. When the manufacturer runs an ad in a magazine or in your community newspaper, you should run an ad for your store telling the local people that you handle this product. This helps you take advantage of the national ad which tells about the product and why people should buy it. Another way to get more mileage from your advertising money is to run cooperative advertising. Many manufacturers who fertilizer and other products will pay half the cost of the advertising that you run for their products. They will even furnish the mats and illustrations. All you have to do is make arrangements with the local sales representative or with the company. This means that you can run twice as much advertising for the same amount of money, or save half of your own expenditures. Manufacturers often provide mats, booklets, point-of-sale posters, radio commercials, movies, and dozens of other advertising aids. Much of this is done in expensive color and is provided at little or no cost to the dealers. You can save a lot of money by taking advantage of their generosity. In some instances suppliers will prepare special advertisements for your store. This professional help should be valuable to you. Ask for it!**

# FARM SERVICE DATA

## Extension Station Reports

Considerable progress in cotton weed control is reported by the latest issue of South Carolina Agricultural Research, publication of the S.C. Agricultural Experiment Station.

**Experiments are showing that by applying herbicides at planting time much of the hoeing can be eliminated. Due to the considerable hand labor involved, hoeing is considered an expensive practice in cotton production.**

Treatment with pre-emergence chemicals demonstrated a striking difference from non-treated areas, the treated area being practically free of weeds and grass, while the untreated rows were a mass of grass and weeds, the report said.

Tractor outfits with planting, cultivating, and spraying equipment currently in use can be readily adapted to chemical weed control work, the publication notes.

★

Loose smut has hit Kentucky wheat crops hard this year, say University of Kentucky Agricultural Experiment Station agronomists, and if this wheat is used for seed purposes in 1957, will do still more damage unless the seed is properly treated.

Verne Finkner, agronomist, said that the smut fungus was widespread this year and that Knox variety is particularly hard hit. The loose smut causes a reduced yield, he says; for instance, if a farmer's wheat crop had about 10% loose smut-hit plants, he lost 10% of his yield.

Mr. Finkner noted that loose smut cannot be found in seed by visual inspection, except by microscope. For that reason, farmers sometimes will check their seed by eye and be misled into using it for seed purposes.

From 10 to 15% of wheat grown in Kentucky this year was of the loose smut susceptible Knox variety. This is a popular variety and next year may account for as much as 25% of the state's wheat.

★

Gulf Coast Prairie soils, especially those east of the Brazos River, and those in much of East Texas could profitably utilize applications of agricultural limestone, says M. K. Thornton, extension agricultural chemist at Texas A&M.

Mr. Thornton also has charge of the soil testing laboratory at College Station and by summarizing the analysis of several thousand soil samples, he has definite information on the state's lime deficient soils.

**A summary of 3,884 soil samples from Gulf Coast Prairie soils showed that 25% of the soils would benefit from applications of limestone. The percentage was even higher, 60%, on the 585 samples from forested coastal plains soils while the 422 samples from alluvial soils showed that only 5% would benefit from the use of limestone. Mr. Thornton points out that using lime in this section of Texas in connection with the ASC program is a highly beneficial practice and in some cases a must.**

The lime deficiency was even more pronounced in the soils from the East Texas area. From the forested coastal plains of the area, 3,314 samples have been tested and 76% of the soils would benefit from the use of agricultural limestone, said Mr. Thornton. Another 1,429 soil samples from prairie soils showed that 50% were low in lime while 471 samples from the alluvial soils of the East Texas area showed that 33% of the samples analyzed needed lime.

★

Farmers, nurserymen, gardeners and others who fight diseases, insects, weeds, grasses and the elements can add a most valuable ally, Vapam, to their list with confidence, according to John A. Cox, Louisiana State University extension horticulturist. Vapam is a chemical used to treat soil for the control of weeds, grasses, diseases and nematodes. It was developed by Stauffer Chemical Co.

Plant scientists of the Louisiana Agricultural Experiment Station have observed and tested this chemical for about three years and have given it use as a soil fumigant the green light. Dr. N. L. Horn and Dr. Weston J. Martin of the LSU plant pathology department have conducted tests which definitely show its value as a soil fumigant. It has been used successfully by several growers of pepper, eggplant, tomatoes and other truck crops.

Vapam, like methyl bromide, has given practically 100% control of damping-off of young plants in hotbeds in at least 5 locations in the state. It not only controls diseases, it keeps down grasses and weeds in hotbeds and eliminates nematodes, the researchers report.

★

"Proper use and stocking of range land have proven to be profitable from pounds of livestock produced as well as from conservation of soil and water to withstand drouths," says G. O. Hoffman, extension range specialist, Texas A&M College.

In speaking of the practices, Mr. Hoffman referred to them as the tools of range management. Each individual should choose the range management tool that will best help him maintain a long lasting, profitable ranching business. These range land practices are: proper use and stocking, deferred and rotation grazing, brush control, reseeding, cross-fencing, salt and water distribution and walkways in marshlands.

Mr. Hoffman says the rancher should graze only the number of livestock that he has grass for, with stocking rates figured on using half and leaving half of the current year's growth. Another good practice is deferred grazing. The deferred pastures can be mighty important as a feed reserve during winter. Or, by rotating livestock, one pasture can be deferred while grazing others, says Mr. Hoffman.

★

Research in South Carolina has shown that applications of boron and manganese, two minor plant food elements, will increase cotton yields in that state.

In tests over a three-year period, average yield increases varied from 24 to 54 lb. of lint per acre. Some of the variation was accounted for by the different forms in which boron and manganese were applied to the soil.

Highest average yield response was recorded in 1953 with a per-acre treatment of five pounds of colemanite (to supply boron), plus five pounds of manganese sulfate. Lowest average yield was in 1954 with a treatment of 10 lb. of boron frit and 20 pounds of manganese frit.

# ecords Retention in Small Business

By Robert A. Shiff, President
National Records Management Council, Inc., New York

he problem of retaining business ords is, today, as important in the ll business as in the giant enter- e. Every business—regardless of assets, sales volume, or number employees—faces a potential prob- condition. This is true because tually every concern tends to rd paper in its files—invoices, rchase orders, sales slips, tax rec- s, payroll and personnel docu- nts, reports, correspondence, extra bon copies, and the like. Some or- izations may be able to afford ger and larger outlays for equip- nt, space, and manpower to main- n and service records. But the ical small firm cannot. It must every efficient means available keep costs down.

The paperwork area that ordinarily the greatest potential for dollar ings is record keeping. As a small siness accumulates more and more per, the usual solution is to buy re transfer files and filing cabi- ts. Occasionally, management will cide to reduce the records volume intensive weeding-out campaigns. e intentions are commendable, but sults generally fall short of the rk.

Why? Because you cannot get ople to agree on precisely what nstitutes a "useless record" and at constitutes a "useful" one. hat is needed—and can be de- loped—is a records retention sched- based on objective data. A rec- ds retention schedule is a table owing the life span of each type of cord. It lets you know how long ch type of record must be kept to et both government requirements d your own operating needs.

There can be no quick-and-easy lution to the records retention prob- n. An effective schedule is as in- vidual as a prescription for eye- asses. Experts can work with you develop a schedule, but they are ways dependent on the special owledge that you have. However, me general rules or guideposts can given.

### Developing a Records Retention Schedule

Here are the basic factors to con- er in the light of your own oper- ions and experience: (1) legal re- irements, (2) administrative re- irements, (3) historical require- nts, and (4) administrative discre- on.

**Legal requirements**—Pay primary tention to what records you must ep for specified lengths of time in der to comply with Federal, State, local requirements. Also, there are stances where certain records ould be kept even in the absence a specific rule because of statutes limitation. These laws prescribe e length of time after an action ring which legal proceedings can taken against your company or y of its personnel. Your legal ad- sers can tell you how long certain pes of information must be kept. Note that it is the information con- ined on a record that must be kept, t a record as such. The govern- ent usually does not prescribe by le or name the particular form on hich the data must be recorded.

**Administrative requirements**—Your n operating needs are another ason why no "canned" schedule can satisfactory. The schedule you de- lop must take into account your rrent practices—not those of an- her company.

There are definite advantages in ntinuing procedures you have found tisfactory and with which your employees are familiar. By analyzing the use to which your records are put, you can tell what records are referred to, by whom, and how often. Some records of historical value, especially those indicating why certain decisions or policies were adopted in the past, provide valuable future administrative guidance. Only the management of a concern knows which records fall into this category and should be retained accordingly.

**Administrative discretion**—It is your discretion that dictates which records will best satisfy all requirements. For example, the regulations of the Interstate Commerce Commission concerning certain carriers and freight forwarders, contain retention clauses ranging from two years to permanent for information about property. In addition, payrolls and material-distribution sheets must be kept permanently, except when the data is transcribed to other permanent records. A whole series of records frequently contain this information—time cards, vouchers, job tickets, payroll worksheets—and it is within management's discretion to designate one or two of these for permanent retention. In this way, much space and equipment can be saved.

Many statutes of limitation also leave room for discretion. In several states, the statute on open accounts is six years. Therefore, based on your own past experience, you may decide that it will be sufficient to keep vouchers for small sums (say under $50) for only three years.

### Four Key Questions

Ask yourself these four questions about every record type for which you want to establish a retention period: (1) What are the legal requirements for this type of information? (2) If there are no formal

PENCO DEFOLIANTS AND DESICCANTS
ENDOTHAL*
DE-FOL-ATE®
PENITE-6X®
PENTA CONCENTRATE 40
DESICCANT L-10

*Endothal is the accepted generic name for 3, 6-endoxohexahydrophthalic acid. The manufacture and use of endothal products are covered by one or more of the following U. S. patents: 2,550,494; 2,576,080; 2,576,081; 2,576,083; other pats. pend.

THROUGH pioneering research and development of defoliants and desiccants, PENNSALT has become a leader in this field of agricultural chemicals. Because chemical harvest aids make harvesting easier, more economical and, therefore, more profitable, the use of these products is rapidly increasing. Through technical development, PENNSALT is constantly striving to improve its widely used defoliants and desiccants. In the meantime, in seeking a *perfect* defoliant, several candidates are being field tested. The newest one is PENCO DESICCANT L-10, which is available only in Texas this season for use on cotton.

So, for increased sales and profits, stock the broad line of PENCO defoliants and desiccants. Write your nearest PENNSALT CHEMICALS office for service bulletins.

PENNSYLVANIA SALT MANUFACTURING COMPANY OF WASHINGTON

AURORA, ILL. TACOMA, WASHINGTON BRYAN, TEX.
Berkeley, Calif. Los Angeles, Calif. Montgomery, Ala. Portland, Ore.

*Producing Chemicals for Farm, Home and Industry for Over 105 Years*

Pennsalt Chemicals

legal requirements, is there an applicable statute of limitation? (3) If so, how long a period does it state? (4) What would happen if this record were not available for reference?

By measuring your records against these yardsticks, you can use facts instead of conjecture in making sensible records decisions. For example, some organizations are so cautious that they keep cancelled payroll checks for the "safe" period of 20 years. In reality, legal requirements range from three to six years. Thus, these firms spend money needlessly to store cancelled checks anywhere from 14 to 17 years beyond any real need.

### Specific Record Groups

The following summary of typical record groups includes an explanation of the factors to watch in setting a retention period for each type of record.

**Accounting, general** (journals, ledgers, trial balance) — Journals and ledgers mean different things to different companies. The General Ledger, as the basic summary accounting record, is usually retained permanently. The subsidiary journals and ledgers are required only for internal administration and need be retained only through periods of actual use by the accounting department, auditors, or top management. Trial balances are working papers that need be retained only through final audit.

**Accounts payable** (general cancelled checks, cancelled payroll checks, vouchers) — While cancelled general checks may be retained for the number of years defined in each State's statute of limitations (average of six years), some companies keep payroll checks for only two years. Cancelled payroll checks can create a volume problem. The greatest activity is in the first few weeks after issuance, and usually falls to next to nothing after the first year.

Vouchers are always a bulk problem. Rather than keep them all for six to 20 years, breaks can be made between plant vouchers (retained permanently), operating vouchers (retained for an average of six years) and petty cash vouchers (retained for an average of one to two years). This holds for originals only. Further breaks might be made by dollar value. It pays to limit retaining copies of these vouchers for a minimum number of weeks or months.

**Accounts receivable** (billing copies of invoices, credit-memo invoices, accounts receivable ledger)—Management's chief concern is in the unpaid invoices. Paid invoices—particularly large-volume, small-dollar-value items—may often be disposed of within six months to two years. Most complaints on payment or amount of payment are received within this period.

Equally important is minimum retention of any invoice files that duplicate the basic record (arranged by customer or by invoice number). Only those invoices connected with items of new design or the first item of a patentable product require long indefinite retention. The accounts receivable ledger, as a basic summary of credit sales, need be kept only so long as it is a ready index to invoices or total daily sales. Where there is no other summary of sales, it may be useful to retain it indefinitely for historical purposes.

**Legal** (contracts, copyrights, patents, trademarks, suits) — Copyrights, patents, and trade-marks are usually retained permanently. Contracts are more often kept for six years after expiration, but when renewed annually are generally kept for shorter periods. Records on law suits are typically kept for six to 10 years after settlement. Bulky work papers and routine notes connected with contracts and suits should be cleaned out as soon as the matter is legally completed.

**Payroll** (earnings records, payrolls, pension records)—The basic legal requirements are: (1) Internal Revenue Service—four years for earnings records (Federal Insurance Contributions Act and Federal Unemployment Tax); (2) Department of Labor, Wage and Hour Division—three years for payrolls, two years for earnings records; and (3) the Department of Labor, Division of Public Contracts—four years for wage and hour records. Pension records are usually retained permanenty and may often serve as the earnings record as well.

**Personnel** (applications for employment, attendance records, time clock cards, employee history records, personnel folders)—Where a company maintains both employee history cards and personnel folders, the history cards may be destroyed within one year after termination of employment. An exception to the latter might be the top executive personnel data. Employment applications should be kept only for jobs or persons where the company anticipates action in the near future. Attendance records, time clock cards, and related data should be handled as a package: where this information is summarized on project or payroll records, the bulky initial records may be discarded within 1 to 6 months.

**Production** (job tickets, maintenance records, operating reports, production orders)—Job tickets and production orders are really only of value in processing the order through the factory or when the customer raises questions on delivery or quality. These points come up in the initial months after shipping.

Actual production orders are the only ones that warrant retention beyond one year. And of all the records for one order (e.g., job ticket, shipping ticket, bill of lading) only one need be retained in the original. Most information is repeated from one form to the next. Maintenance records are usually retained for the life of the equipment on which the data is compiled. Monthly operating reports on production are valuable up to two years. Annual operating reports should be kept permanently for historical and management purposes.

**Purchasing** (bids, purchase orders, receiving reports, purchase requisitions)—Purchase orders should be broken down into categories for retention purposes: major equipment, expendable supplies and materials, and the like. Major purchase records, particularly where specifications are included, might be kept for six years. Routine items may be cut to three years and still stay within legal requirements on proof of local purchase and on records of use for tax purposes.

Purchase requisitions need be retained only until the items are received—since the data is covered on the purchase order. Receiving reports are usually supporting documents for the accounts payable vouchers and are retained accordingly.

Bids are kept after a contract is let out only so long as management wants them for post-audit purposes, and so long as purchasing agents may need them as references for the next contract for the same service or items.

**Real estate** (deeds, leases)—Deeds, right-of-way, and easements are usually retained permanently; leases for six years after expiration. If leases are renewed annually, they may be kept only for the current year plus one.

**Sales** (correspondence, customer orders, salesmen's reports)—Sales correspondence on deliveries, acknowledgments, bids, and so on, need only be kept at the most 30-60 days for possible answer and follow-up. Policy letters should be segregated and retained permanently. Customer orders in sales departments are only copies of accounts receivable files and should be kept, if at all, for minimum periods.

**Secretary** (annual reports, by-laws, minutes of stockholders meetings, cancelled stock certificates) — The first three items are usually kept permanently. Cancelled stock certificates are not governed by any Federal legal requirement (except for regulated companies) and may be destroyed at the discretion of the company. However, most firms keep a formal certificate of destruction.

**Tax** (purchase-and-use tax returns, state and federal tax returns) — Regulation on purchase-and-use taxes usually state that a city must announce its intentions to act on a company's returns within three years. There is no limitation, however, in case of fraud. The same holds true of state and federal returns.

The purchase-and-use tax statements are usually retained for three years. State and federal returns, being more involved, are retained at least six years, often permanently. Work papers may be destroyed within the minimum periods.

**Traffic** (bills of lading, freight bills, packing lists) — The only legal requirement on these items is on "order, shipping and billing records"—Department of Labor, Wage and Hour Division—for two years. However, there is rarely need for more than one official record to cover any one shipment (see also preceding section on production).

### Operating Under a Retention Schedule

While the core of a sound record-keeping program is an accurate retention schedule, an efficient system also means that you . . .

**(1) Know what records, and how many of them, you have.** A physical inventory should be taken of all your records, preferably under the direction of the person who is responsible for the entire operation.

It is not necessary to examine every single piece of paper, only the different groups of records. Using separate sheet of paper for every record type, record the following facts: (a) type of record (checks, accounts payable, employment applications and the like); (b) period covered, beginning and closing dates; (c) department that has jurisdiction over the record—such as, sales, shipping, or accounting; (d) location of the record; (e) kind of equipment the record is in; (f) volume in cubic feet—letter-size drawers usually contain 1.6 cu. ft., and legal-size 2 cu. ft.; (g) amount of space occupied by files and by shelving for records.

**(2) Learn how much use is made of each record type.** Have a reference analysis made over three to six months to see how frequently a given type of record is actually used. This information will give you a factual basis for ear-marking records for retention, destruction, or storage in a low-cost records center.

**(3) Set up a low-cost records center.** Once you know what records you have, how often they are used, and how long to keep them, you are prepared to realize substantial dollar savings in equipment, space, and personnel by scheduling inactive records for transfer to a new-type records center. Such a center can insure both better reference service and economy if you locate it in low-cost space away from the office and institute a reference system. You can use the center for records that must be kept permanently, and for those not yet old enough to be destroyed or sold as waste paper.

### Essentials of a Records Center

When you set up your records center, plan for the following basic elements:

**Shelving:** Space-saving shelves, preferably of metal, are used to store cartons of records. Ordinarily, 12 cartons can be stored satisfactorily on a 32x42 inch shelf.

**Cartons:** Corrugated cardboard containers having 10x12x15 inch dimensions are ideal. They may be used for either letter- or legal-sized documents. Economical and sturdy, they may be obtained from a number of manufacturers.

**Index:** Records should be indexed as they are boxed for storage. Each cardboard box should have a number which designates the permanent location assigned to it in the record center, and an inventory sheet showing the contents of the box.

**System:** Set up a system for obtaining information or records from the center. It should include procedures for finding material rapidly and for returning it to its proper place after use.

v v

**EDITOR'S NOTE:** The above article on the retention of certain business records appeared originally as a management aid in a Small Business Administration bulletin. The author, Robert A. Shiff, is president of the National Records Management Council, Inc., New York.

## PASTURE FERTILIZATION RECOMMENDATIONS

**"Oats and rye grown for winter and spring grazing should be well fertilized at planting and top dressed at 100 to 200 lb. per acre of nitrate of soda or equivalent, December and again in February. Lupine planted for winter cover crops should be planted early in October and fertilized with 500 lb. per acre of a 0-14-10 fertilizer.**

**"Grass pastures should be fertilized annually in February with 500 to 1,000 lb. per acre with a 6-6-6 fertilizer and top dressed with 30 lb. of nitrogen per acre in July or August. An application of 300 lb. per acre of a 10-0-10 or a 10-0-20 fertilizer in the fall will increase growth, help prevent winter killing, and produce plants better able to make vigorous growth the following spring.**

**"Irrigated grass pastures should receive an application of a complete fertilizer such as 6-6-6 in October. Grass and legume pastures should be fertilized annually in October with 500 to 1,000 lb. per acre of a 0-10-20 fertilizer and top dressed with 30 lb. of nitrogen per acre in June or July. An application of 300 lb. per acre of a 10-0-10 fertilizer in August or September will aid in quantity production of high quality feed."—F. B. Smith, head, department of soils, University of Florida, Gainesville.**

## FARM LABOR FREER

**"In Kentucky, we are urging farmers to fertilize in the fall because farm labor is freer from a rush that in the spring and the equipment is available for the job. Also, we find that crops fertilized in the fall recover from drouth more quickly and more completely and will offer more fall grazing. We are also urging farmers to buy next year's supply of fertilizer this fall. If they buy this fall they can easily get the kinds and amounts wanted in a thoroughly cured material, and they avoid the rush on fertilizer plants and dealers next spring." — George D. Corder, field agent in agronomy, University of Kentucky, Lexington.**

# What's Been Happening?

**This column, a review of news reported in Croplife in recent weeks, is designed to keep retail dealers on the regional circulation plan up to date on industry happenings.**

The prospect of corn belt farmers having a considerable amount of "found" money this fall through their participation in the soil bank was discussed by USDA officials early in August. The USDA said that more than $12 million will be available to farmers before election time in November. The agricultural chemical trade regarded this development as an opportunity to make additional sales in the fall.

**The Southwestern Fertilizer Conference at Galveston, Texas July 18-20 heard experts discuss the merits of different forms of fertilizers, and of manufacturing processes.**

A triumph in cross-pollination between a wildgrass and wheat, to give the wheat resistance to rust, was announced by the Missouri Agricultural Experiment Station and the U.S. Department of Agriculture. E. R. Sears, plant breeder with the ARS, arrived at the desired objective after crossing and re-crossing different grasses and wheat through five intricate steps.

A fertilizer industry conference held at the University of Illinois on July 26-27 featured speakers who discussed the economics of soil fertility. Sound management practices will increase the need for fertilizers, one speaker declared, while another stated that it is cheaper now to buy nitrogen than it is to grow it through legumes.

The American Potash Institute, Washington, D.C. stated that although final figures on potash deliveries in the U.S. had not been completed, (Croplife issue of August 6) little change in tonnages from those of last year were expected. Export figures were expected to be up somewhat, to counterbalance an expected slight decline in domestic sales.

William C. Franklin, Baltimore, Md., was named as acting president of Virginia-Carolina Chemical Corp. by the firm's newly-constituted board of directors. V-C's former president, Joseph A. Howell, was replaced when stockholders of the firm voted against the management in favor of an insurgent group headed by Rupert T. Zickl, of New York, during a special meeting in Richmond July 18. Six new board members were named and resignations of three old board members were accepted by the new group.

Soil bank agreements for 1956 have indicated broad interest on the part of farmers particularly in the Great Plains and Corn Belt states. Acreage reserve programs of wheat, cotton, corn, rice, peanuts and tobacco may total as much as 6 million acres, according to estimates.

A program featuring panel discussions on what and who influence farmers to buy was announced by the National Agricultural Chemicals Assn. for its 23rd annual meeting at Spring Lake, N.J., Sept. 5-7. The Assn. will elect new officers for the next two-year period.

U.S. Borax and Chemical Corp. announced that as a result of the merger of U.S. Potash Co. and Pacific Coast Borax Co., the new firm will locate its administrative office in Los Angeles in the company's office building, 630 Shatto Place. J. M. Gerstley is president, P. J. O'Brien vice president. J. F. Corkill will head the Pacific Coast Borax Co. Div. and Dean R. Gidney, the United States Potash Div.

Facts and figures on fall fertilization—to help manufacturers, distributors and retailers boost autumn business—were presented in a special section of the July 23 issue of Croplife.

Congress was asked for a $2.5 million appropriation to expand the campaign to control the Mediterranean fruit fly in Florida . . . The J. R. Simplot Co., Pocatello, Idaho, announced the opening of a new phosphate mine on the Idaho-Montana border a short distance west of Yellowstone Park.

A possible shortage of benzene because of the steel strike, threatened basic manufacturers of pesticidal materials that use this raw material. The steel industry's coke ovens supplied a large portion of the chemical trade's benzene needs.

**R. W. Ludwick, State College, N.M., was elected president of the Association of Southern Feed and Fertilizer Control Officials at the group's 14th annual meeting at Roanoke. E. W. Constable, Raleigh, N.C., was made vice president and Bruce Poundstone, Lexington, Ky., was re-elected secretary-treasurer. M. P. Etheredge, State College, Miss., is retiring president.**

An appropriation of $45,000 for control of an infestation of grasshoppers in southern Iowa, was granted by the state, on July 9. The move was expected to be in time to bring the infestation under control before serious damage was done to corn and beans, in particular.

**Experiments with 2,4-D against sagebrush on western ranges showed that the unwanted plant can be controlled with this chemical. As a result, USDA is recommending the use of 2,4-D for control of this unpalatable plant which covers millions of acres in the west.**

The U.S. Bureau of Census reported that May production of anhydrous ammonia totaled 310,422 tons, a gain of 1% over the production of April. Output of ammonium nitrate, however, was down slightly in May as compared to the previous month.

Factors involved in making recommendations for fertilizers were studied in the 35th annual meeting of the Del-Mar-Va Peninsula Fertilizer Assn. held at Ocean City, Md., June 30. Some 125 fertilizer men were in attendance. Dr. H. L. Dunton, Virginia Polytechnic Institute, was featured on the program.

**A three-day rain ending July 4 acted as a temporary deterrent to the destructive activities of hordes of grasshoppers in Iowa. Dr. H. M. Harris, state entomologist, however, said that broader control measures would have to be taken if the infestation were to be halted. The state legislature was asked for an emergency appropriation of $45,000 to be used in grasshopper control.**

# Mississippi Survey Shows Knowledge Of Recommended Fertilizer Practices

STATE COLLEGE, MISS.—Nearly 100% of the farmers in Alcorn County, Mississippi, have heard of the practice of sidedressing corn with nitrogen, studying the plant food content per pound in buying fertilizer and having soil tested at least once in five years.

These findings were revealed in a survey conducted by the Mississippi Agricultural Experiment Station in Alcorn County. The survey included 139 farmers.

The accompanying table presents a list of 12 farming practices selected for the study. Also shown are the percentages of farmers using each practice, who had heard of it and thought it the better practice. The practices had been well communicated, as two were known by all farmers and all practices were known to more than 90%.

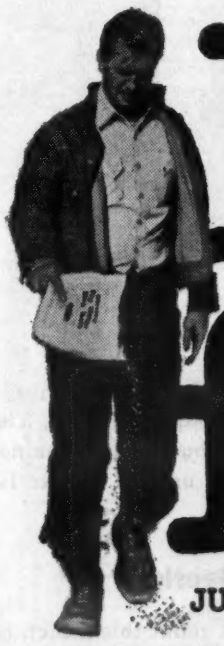
Smaller but sizable proportions thought that the recommended practice was the better and, in most cases, decidedly smaller proportions were using a practice. The percents using practices ranged from 79 to 77 who were planting certified cotton seed and using nitrogen sidedressing on corn, down to 17% and 23% who were keeping written farm records and culling bad trees from timber stands.

The extreme contrast between having information and using it is found with respect to keeping written farm records. Ninety-eight percent of the farmers had heard of the practice, 93% thought it was a good one, but only 17% were following it.

**Practices Followed by 139 Farm Operators in Alcorn County, Mississippi, in 1954**

| Practice | Number of farm operators to which practice applies | Per cent of farmers—Using practice | Heard of practice | Think practice is better |
|---|---|---|---|---|
| Plant certified cotton seed | 127 | 79 | 100 | 95 |
| Nitrogen sidedressing corn | 137 | 77 | 99 | 92 |
| Considers plant food content per pound in buying fertilizer | 139 | 73 | 96 | 91 |
| Thick spacing of corn on better soil | 137 | 65 | 96 | 69 |
| Most fertilizer on row crops on better soil | 139 | 53 | 91 | 73 |
| Use Warfarin poison for rodent control | 139 | 53 | 94 | 73 |
| Mow pastures to control weeds | 126 | 41 | 99 | 98 |
| Plant hybrid seed corn | 137 | 38 | 96 | 53 |
| Poison cotton four times or more | 127 | 36 | 95 | 80 |
| Soil tested at least once in 5 years | 139 | 28 | 97 | 88 |
| Cull bad trees from timber stand during year | 102 | 23 | 100 | 88 |
| Keep written farm record | 139 | 17 | 98 | 93 |
| Average for 12 practices | | 49 | 97 | 83 |

*Easiest, quickest way known to*



kill flies

JUST SCATTER IT LIGHTLY AS YOU WALK

ORTHO Fly Killer Dry Bait

This is IT! After years of research ORTHO gives you the newest, most effective fly killer ever made. Every granule kills *many* flies. Keep it handy to get rid of flies—FAST!

**Easy to use.** No mixing. No measuring. No equipment. Treats average-size barn in 5 min.

**Useful.** Controls DDT resistant and non-resistant houseflies around sheds, barns, stables, pens and coops.

**Effective.** Flies can't devour 1/16" granules, but feed and die. Leave granules to bait other flies.

**Flies love it.** This dry granule bait contains special attractives that lure houseflies.

**Free running.** Non-caking. Always loose, ready to scatter.

**Economical.** Only one-quarter pound covers 500 sq. ft. of feeding area.

ORTHO
SCIENTIFIC PEST CONTROL

ON ALL CHEMICALS, READ DIRECTIONS AND CAUTIONS BEFORE USE.

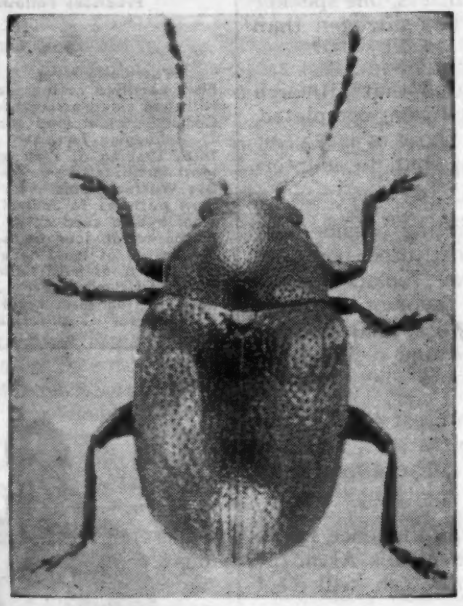
T.M. REG. U.S. PAT. OFF.: ORTHO

California Spray-Chemical Corp. Executive Offices: Richmond, California • Washington, D.C.
DISTRICT OFFICES: Portland, Ore.; Whittier, San Jose, Fresno, Sacramento, Cal.; Caldwell, Idaho; Maryland Heights, Mo.; Memphis, Tenn.; Orlando, Fla.; Phoenix, Ariz.; Maumee, Ohio; Haddonfield, N. J.; Medina, N. Y.; Columbia, S. C.; Shreveport, La.

# BUG OF THE WEEK

**Mr. Dealer—Cut out this page for your bulletin board**

## Rose Leaf Beetle



### How to Identify

The rose leaf beetle is a small, oval-shaped metallic-green beetle, about ⅛ in. long. They are most numerous in suburban gardens near uncultivated fields. They usually appear late in May or early in June.

### Habits of Rose Leaf Beetle

Actually, little is known about this insect, but it is believed that the larvae live in the soil and feed on the roots of various plants beneath the surface. The beetle's scientific name is Nodonota puncticollis (Say).

### Damage Done by Insect

In addition to feeding on roots in the larval stage, the rose leaf beetle, as an adult, feeds on a number of flowers in addition to roses. It attacks iris and peonies and also on the tender shoots, flowers and foliage of crops such as blackberries, raspberries, strawberries, clover, peaches, pears and plums. Frequently the beetles swarm over flowers and in a very short time riddle them with shot-like holes, thus retarding growth of the plants and making them unfit either for marketing or for esthetic enjoyment.

### Control of Beetle

According to literature on the subject, no satisfactory control for the rose leaf beetle is known. Dusting with 5% DDT has been effective, as has the application of pyrethrum. The difficulty, however, lies in actually reaching the bugs with the dust or spray. Many of the pests are working within the buds or flowers and ordinary means of application of insecticide frequently fail to contact the culprits. Some of the literature advises jarring the bugs into a pail of water covered with a film of oil, or by picking the beetle-infested flowers and dropping them into the container. Early morning or at dusk is described as being the best times for such operations.

Illustration of rose leaf beetle furnished Croplife through courtesy of U.S. Department of Agriculture, Washington, D.C.

**Previous "Bug of the Week" features have been reprinted in attractive 24-page booklet, priced at 25¢ single copies; reduced rates in quantities. Write Croplife Reprint Dept., Box 67, Minneapolis 1, Minn.**

## INSECT NOTES

(Continued from page 5)

n to be favorable to European borer.

e situation looks favorable for ge brood of corn borers coming the second generation. In ad- to the two-brooded strain is dominant in this area, there pparently been considerable late ity of borers which indicates the ability of the one-brooded strain active this year. The one-brood- train is normally found in loca- near the Delaware River. The iest activity, which begins with h of most of the eggs of the sec- brood corn borer, will be about ust 15th in the central Jersey and ust 20th in the northern counties.

**Field corn which is in tassel and dding pollen just prior and at time in the areas mentioned be most susceptible and will ite larger populations of Euro- n corn borers.**

### er Leafhopper Makes pearance in Colorado

T. COLLINS, COLO.—Aster leaf- per, responsible for transmission plant disease affecting a number Colorado crops, has shown up in ttered areas throughout the state. ect surveyors have noted the high- numbers of the leafhopper in ro and Weld Counties. It also has eared in Boulder, El Paso and a Counties. The leafhopper trans- s aster yellows to carrots, celery, atoes and other plants.

potted alfalfa aphids were on the rease early in August, according the weekly report of the Colorado ect detection committee. Dr. L. B. niels, chairman of the committee chief entomologist for the Colo- o A&M Experiment Station, noted t the increase has taken place in ero, Crowley and Montezuma unties.

Larvae of corn earworm are report- maturing and leaving corn for pu- ion in Prowers, Bent, Las Animas Otero counties. Tomato growers re alerted to watch for deposition earworm eggs on tomatoes and sequent damage by larvae.

**The weekly report notes heavy mage by western corn root orms to crops growing in Boulder, rimer and Weld Counties. Some ot worms have shown up in in- ect light traps located in south- stern counties. Harlequin cab- ge bug is causing serious damage cabbage, turnips and rutabagas Pueblo county.**

Beans and sugar beets in Monte- ma, Montrose, Delta and Mesa unties are being damaged heavily pale striped flea beetles.

### spberry Worm und in Oregon

PORTLAND, ORE.—Entomologists the state agricultural department ort they have discovered the west- raspberry fruit worm near Ne- em in Tillamook county. F. P. rson, department survey entomolo- t, said a grower in the Nehalem ea reported suspected infestation er reading about the western rasp- rry fruit worm in the newspapers.

The grower's plantings covered less an a quarter of an acre, but heavy festation was present in his Cas- de blackberries.

### orn Borer Threat reat in Illinois

URBANA, ILL.—Although the ex- nt of corn borer pupation cannot be termined at this time, 25 to 50% the first-generation borers have pated, and some moths have emer- d in the north half of Illinois. Egg ying has now started and eggs can found in field corn. Further pupa- tion of borers is expected, and moth flight and egg laying will become more noticeable with the peak of egg laying, expected between August 6 and 20.

In general, first-generation corn borer numbers in the northern three tiers of counties and the eastern two tiers south to Highway 36 are two to four times as great as in 1955. In this more heavily infested area, barring adverse conditions for survival, second-generation borer may be as severe as in 1955, if not worse. The rest of the state north of Highway 36 has about the same borer population as last year, and the second generation may be about the same or less than last year.

**Newly hatched corn earworms were observed this past week (Aug. 3) in early field corn in Champaign county. Canners should now be treating for this pest in central Illinois. Northern Illinois canners should be making earworm egg observations and be prepared to treat.**

Grasshoppers are still concentrated in the heavy growth of vegetation in fencerows, ditch banks, and roadsides. If foliage becomes scarce in these places, the hoppers will migrate to adjacent crops. Some minor feeding has already been observed on marginal rows of corn and soybeans. This is particularly true in northern and western Illinois, but a few spotted infestations have also been observed in the central and eastern sections.—H. B. Petty.

### California Experiences Armyworm Infestation

SACRAMENTO—The army worm continues to be a serious pest over much of northern California although its depredations in Sacramento county have been lessened by its entry into the pupation stage.

**Damage in Sacramento county resulted principally to alfalfa, sugar beets and tomatoes. Charles H. Branstetter, crop duster and past president of the Agricultural Aircraft Association of California, said that this was the first time he had ever sprayed sugar beets. He added that all tomato fields in this area have been dusted.**

Intensive air spraying against the worm also was underway in the Tulelake and Butte Valley areas of northern California where the best potential potato crop in years has been damaged. In Scott and Shasta Valleys, ground spray rigs are used and farm advisers report that the pests are in every alfalfa field.

The infestation of Modoc county alfalfa is reported to be the worst in 20 years.


SALESMEN... to help boost YOUR profits!

**LION Advertisements Sell LION Nitrogen, *and* *Your Mixed Goods, Too!***

Continuous Lion advertising appears in leading farm publications, month-after-month, to pre-sell the Lion brand to farmers—and to sell the value of *your mixed fertilizers as well!*

Current advertisements are appearing in Farm and Ranch-Southern Agriculturist, Progressive Farmer, The Farmer, Nebraska Farmer, Kansas Farmer, Prairie Farmer, Wallace's Farmer & Iowa Homestead, Wisconsin Agriculturist and Farmer, Missouri Ruralist and Missouri Farmer. All of these advertisements are in color.

Each Lion advertisement promotes the economic benefits of properly using fertilizers, including Lion Ammonium Nitrate, to help increase the farmer's profits. Each advertisement sells *hard* on the importance of soil tests in the intelligent use of all commercial fertilizers. Lion, a leader in nitrogen production, leads the way to good fertilization practices . . . to better profits for you!

**LION'S QUALITY LINE OF NITROGEN FERTILIZER MATERIALS**

**LION ANHYDROUS AMMONIA**—82.2% nitrogen. Quality guaranteed.
**LION AQUA AMMONIA**—Ammonia content above 30%—other grades to suit your requirements.
**LION AMMONIUM NITRATE FERTILIZER**—Improved spherical pellets. Guaranteed 33.5% nitrogen.
**LION NITROGEN FERTILIZER SOLUTIONS**—Various types to suit your particular manufacturing needs.
**LION SULPHATE OF AMMONIA**—White, uniform, free-flowing crystals. Guaranteed 21% nitrogen.

LION OIL COMPANY
A DIVISION OF MONSANTO CHEMICAL COMPANY
EL DORADO, ARKANSAS

DISTRICT SALES OFFICES: Lion Oil Building, El Dorado, Ark. • Insurance Exchange Building, Des Moines, Ia. National Bank of Commerce Building, New Orleans, La. • 1401 Building, Atlanta, Ga.

## Insecticide-Fungicide Combinations Help Crops

NORFOLK, VA.—Dr. R. N. Hofmaster, associate entomologist, and T. J. Nugent, associate plant pathologist, at the Virginia Truck Experiment Station here, report success in the use of insecticide-fungicide seed treatments for control of seed-corn maggot and seed decay organisms. Stand failure, particularly of snap beans, lima beans and sweet corn, is often caused by seed declay caused by the various seed rot organisms, destruction or injury of the seed by the seed-corn maggot and other soil insects, and influence of weather and improper cultural practices, they point out.

The researchers have conducted extensive tests to determine the best insecticide-fungicide combination for use in the eastern Virginia area. Much of the earlier work in seed treatments consisted of separate applications of insecticides or fungicides. These treatments were not always satisfactory. However, when the insecticides and fungicides were combined, the results improved markedly.

**Short storage periods of three or four months in commercial seed storage had no detrimental effects on treated seeds either in regard to seed injury or subsequent control of seed-corn maggots or seed decay organisms, provided storage temperatures were not extremely high, it was found.**

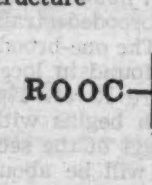
The poor response to insecticide treatments when used alone was not due to failure to control insects, but to increased seed rot. The addition of a fungicide corrected this tendency to decay.

Soil and weather conditions at the time of planting had a definite effect on the results obtained.

# Industry Patents and Trademarks

**2,757,119. Bis-(2-Chloroethyl) Chlorofumarate, Fungicidal Composition of Said Compound and Method of Applying Same.** Patent issued July 31, 1956, to George E. Bennett and Arthur H. Schlesinger, Dayton, Ohio, assignors to Monsanto Chemical Co., St. Louis, Mo. A wheat-rust fungi-inhibiting composition comprising an inert carrier and bis-(2-chloroethyl) chlorofumarate as the essential active ingredient.

**2,757,120. Compositions Containing Esters of Pyridine Dicarboxylic Acids as Insect Repellents and Method of Using.** Patent issued July 31, 1956, to Nelson J. Leonard, Urbana, Ill., assignor to Phillips Petroleum Co., Bartlesville, Okla. A method for repelling flies from a surface frequented by flies which comprises applying to said surface dissolved in an ganic solvent selected from the g consisting of acetone and a hy carbon which boils above atmosph temperature in a concentration ficient to deposit from 1 to 10 gr per 100 square feet of surface compound having the character structure




wherein each R is the same a radical selected from the group sisting of ethyl, n-propyl and n-bu

## Industry Trade Marks

.The following trade marks were publi in the Official Gazette of the U.S. Patent O in compliance with section 12 (a) of Trademark Act of 1946. Notice of oppos under section 13 may be filed within 30 of publication in the Gazette. (See Rules to 20.5.) As provided by Section 31 of the a fee of $25 must accompany each notice opposition.

The following trademarks were publishe the July 31, 1956, issue of the Official Gaz

**Bromotox,** in heavy capital lett for fumigant. Filed July 28, 1955, American Potash & Chemical Co Los Angeles, Cal. First use March 1955.

**Chevron,** in hand-lettered capi letters, with the letter "V" extend in a wing-like pattern, for petrole base oils used as solvents or dilue for wood preservative and mosqu and other pest-control formulatio Filed July 29, 1955, by Standard Co. of California, San Francisco, C First use April 21, 1955.

**Robot Gardener,** in capital lette for insecticide and weed killer c tridges. Filed Aug. 29, 1955, by W ter Ratner, d. b. a. The Grant C Chicago, Ill. First use June 18, 19

**Liquilawn,** in hand-lettered scri for liquid fertilizer which conditio the soil and aids the growth of gra Filed March 4, 1955, by Liquilaw Inc., New York. First use Feb. 1955.

**Agritex,** in stencil capital lette for soil conditioner consisting of ag cultural perlite. Filed July 25, 19 by Tennessee Products & Chemi Corp., Nashville, Tenn. First use Ju 30, 1955.

**Lawn-All,** in capital letters, soil conditioner. Filed Feb. 27, 19 by Michigan Peat, Inc., New Yo First use Jan. 30, 1956.

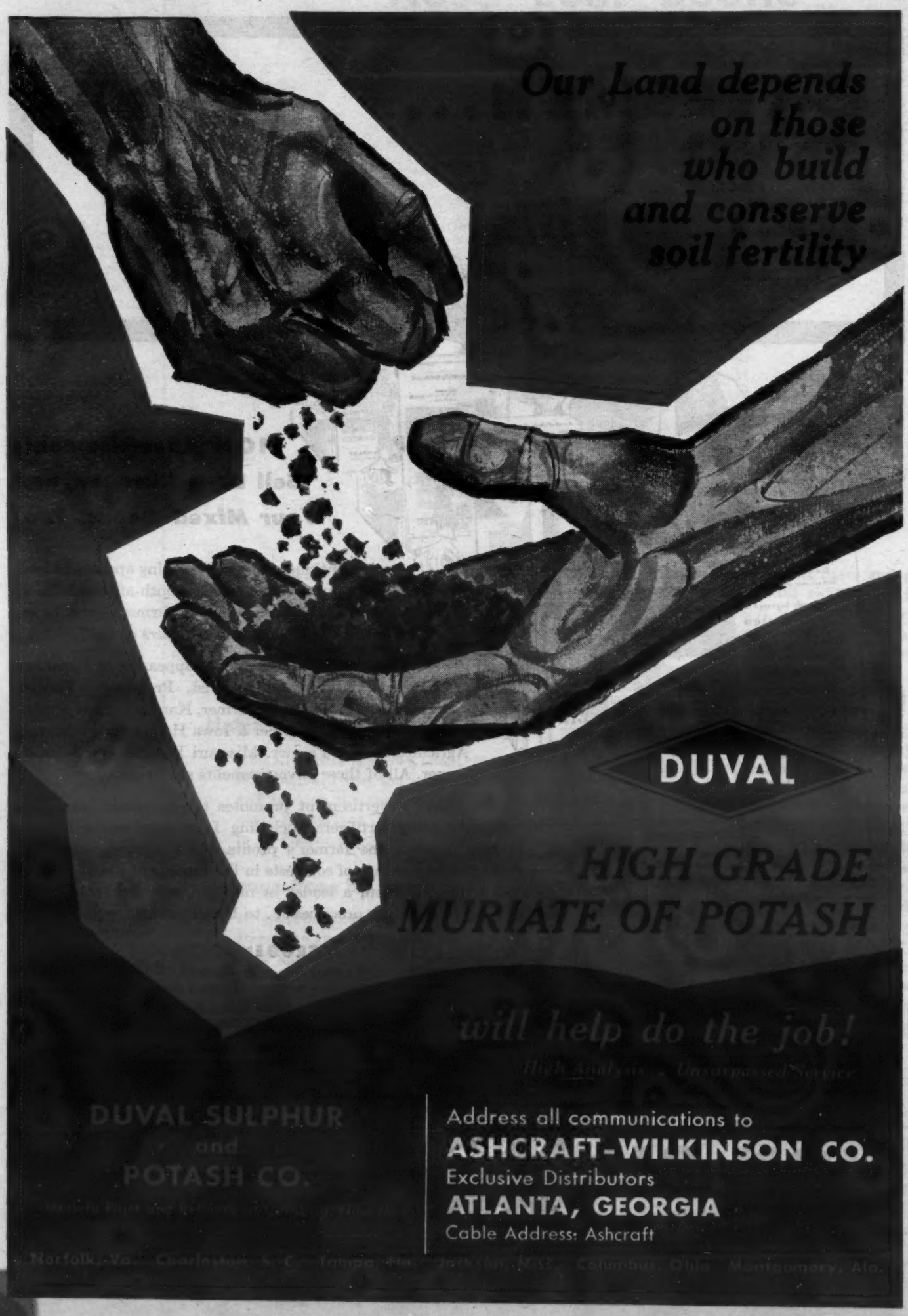
**Eureka,** in capital letters, arrang roughly in the shape of a diamon for fertilizer preparation. Filed Fe 27, 1956, by Andrew Wilson, In Springfield. N.J. First use on or abo Nov. 27, 1933.

## Vacuum Device Reduces Forage Crop Seed Losses

PORTLAND, ORE.—Oregon Sta College experiment station has a nounced development of an exper mental seed reclaimer which is sa to reduce shatter seed losses by much as 75 to 95% under test co ditions.

Tests with the experimental va uum seed reclaimer were made the Willamette Valley in a cooper tive project by the Oregon agricu tural experiment station and the fe eral department's research servic The department said the "new va uum cleaner-agitator device deve oped for reclaiming forage-crop see lost during combining . . . offers con mercial seed growers a way to i crease seed production."

It said trials last year showed t device should enable seed produce to boost their crimson clover yiel sufficiently to gain $25 or more p acre, and that similar savings cou also be realized with hairy vetch a alta fescue seeds, which shatter a high rate under ordinary harve ing methods.


Our Land depends on those who build and conserve soil fertility
DUVAL
HIGH GRADE MURIATE OF POTASH
will help do the job!
DUVAL SULPHUR and POTASH CO.
Address all communications to
ASHCRAFT-WILKINSON CO.
Exclusive Distributors
ATLANTA, GEORGIA
Cable Address: Ashcraft

**Y AWARD PRESENTED—The National Safety Council's "Award of vas recently presented to Brea Chemicals, Inc., Los Angeles, in recogni- the firm's completion of more than a million man-hours without a le injury. Homer Reed, Brea president, in the center, receives the rom J. T. Blalock, president of the Greater Los Angeles chapter of ional Safety Council. Buryl A. Schlagenhauff, at left, is fire and safety or of Brea Chemicals.**

## h Time in 1956, Chemicals Gets Award of Merit

ANGELES, CAL. — Brea als, Inc., subsidiary of Union npany of California, has been ed with the National Safety "Award of Merit." The pres- was made at the Brea plant California with J. T. Blalock, nt of the Greater Los Angeles of the National Safety Coun- king the award, and Homer resident of the company ac- for Brea Chemicals, Inc.

"Award of Merit," the fifth award that Brea Chemicals, s received during 1956, was ed for the completion of more million man hours without a ble injury. The record on he award was made covered endar days and a total of 8 man hours, dating back to t of company operations. Pre- vards received were: National Council "Certificates of Com- ion" for a perfect safety rec- ing the year 1956; winner of y Division, 1955 National Safe- est; Perfect Record Award for om the Greater Los Angeles of the National Safety Coun- the "Million Man-hour from the American Petro- stitution.

300 persons are employed by hich manufactures ammonia, um nitrate, dry ice and allied ural and industrial chemicals. 00 people provide agricultural l service and operate thirteen tion stations located in agri- areas on the West Coast and Hawaiian Islands.

## venting Fruit o Seen as Boon Orchardists

HINGTON, D.C. — Chemical hat retard fruit-drop are re- pre-harvest losses of apples rs from about 20% to less % in many orchards, accord- report just released by the epartment of Agriculture. g application of these sprays, t crop is said to be less like- op when shaken by wind or y ladders.

hemicals in these stop-drop are plant-growth regulators ard the normal formation of cission layer, USDA explains. The flow of nutrients to the fruit is stopped by the growing abscission layer, which separates the stem of the fruit from the branch and causes the fruit to fall. Stop-drop sprays hold the fruit fast from 10 days to four weeks, depending on the compound used.

**At present four plant-growth regulating compounds are commonly used by fruit growers, NAA (naphthaleneacetic acid), 2,4-D (2,4-dichlorophenoxyacetic acid), 2,4,5-T (2,4,5-trichlorophenoxyacetic acid), and 2,4,5-TP (2,4,5-trichlorophenoxyproprionic acid).**

NAA will retard the drop of any commercial varieties of apples and pears (fruits extensively damaged by drop). NAA's effectiveness usually does not last longer than 10 days or two weeks, so the grower must accurately time his application of the spray to take effect just before fruit-drop is expected to begin.

The three other stop-drop compounds will hold fruit fast three to four weeks after application. Experiments by horticulturists of USDA's Agricultural Research Service show 2,4-D will effectively control the drop of two varieties of apples—Winesap and Stayman—and Bartlett pears.

The chemicals 2,4,5-T and 2,4,5-TP are satisfactory for preventing drop of all commercial varieties of apples. Pears, or pear foliage, may be damaged if 2,4,5-T or 2,4,5-TP is used.

**How far ahead of harvest to apply a fruit-sticking spray depends on the chemical chosen. Proper timing allows for a lag of some days after spraying for the chemical to take effect. NAA requires about 3 days to become effective; 2,4-D about 10 days, 2,4,5-T and 2,4,5-TP about a week.**

Orchardists prefer spraying to dusting the fruit, since sprays adhere more readily to the leaves, the main transmission route of the growth regulators. Dusting is effective only when there is enough moisture to make a deposit stick. Between 600 and 1,000 gallons of dilute stop-drop spray, applied with conventional spraying equipment, is required to spray an acre of large fruit trees from the ground. USDA estimates the cost at roughly $4 per acre.

If the stop-drop is sprayed at relatively warm temperatures—70°F. and above—the spray will take effect faster and have greater potency. Damp weather also aids the stop-drop spray in retarding fruit drop, USDA says.

## Soil Pesticides Can Carry Over to Next Season, Tests Show

AMES, IOWA—That soil insecticide applications carry over into subsequent seasons has been indicated by experiments at Iowa State College. These carryover or holdover effects have been observed into the third season following initial application, according to John H. Lilly of the Experiment Station.

**In an experiment started in 1953 four insecticides — aldrin, heptachlor, gamma BHC and endrin—were applied broadcast at 1 lb. per acre before plowing. All four insecticides gave excellent control of a heavy rootworm infestation in 1953.**

Part of the field was replanted to corn without additional insecticide treatment in 1954. Again, control was excellent where the four insecticides had been applied a year earlier. And in 1955, the third growing season after treatment, beneficial effects were still evident, though 1955 was not a year of severe rootworm damage.

This means, says Dr. Lilly, that the per-season cost of rootworm control is lowered in the sense that the beneficial effects may be carried over for at least 2 years where broadcast applications are made.

## Harris Laboratories Buys Omaha Firm

LINCOLN, NEB. — Continuing in the pursuit of its goal to provide additional consulting and testing laboratory services to feed, fertilizer and insecticide manufacturers, Harris Laboratories, Lincoln, has purchased the Alfalfa Processors Laboratory, Omaha, Neb., and will move all equipment to its Lincoln offices.

Clients of Alfalfa Processors Laboratory will be provided with the same services at the Lincoln location, 816 "P" St.

Lewis E. Harris, president of Harris Laboratories, announced that this acquisition of Alfalfa Processors Laboratory will enable his firm to expand more rapidly in the field of soil testing and farm management services, and will also provide additional facilities for research work in the utilization of agricultural by-products.

Ray C. Smith

## Ray C. Smith Named To New Post With Sinclair Chemicals

NEW YORK—Sinclair Chemicals, Inc., has announced the appointment of Ray C. Smith as manager of domestic sales. Mr. Smith, who had previously been manager of market development for Sinclair Chemicals, Inc., in New York, will manager the company's chemical marketing activities with headquarters in the same city.

A native of South Bend, Ind., Mr. Smith graduated in 1947 from Purdue University with a bachelor's degree in chemical engineering. He served in the U. S. Army for four years during World War II and was discharged as captain, field artillery. He spent two years in the European theater of operations.

In 1947 he entered the Sinclair research laboratories at Harvey, Ill., as technologist, lubricants division. In September, 1952, he was appointed manager of market development of Sinclair Chemicals, Inc., in New York.

### NEW SALES HEAD NAMED

MARYSVILLE, OHIO — Appointment of Jack Welsch as director of sales for O. M. Scott & Sons Co. has been announced by Charles B. Mills, president. Mr. Welsch will make his headquarters at the company's New York offices.

**83 CARS OF NITROGEN—Shown above is the head of an 83-car trainload of Spencer ammonium nitrate fertilizer which recently was delivered to dealers of the Anaconda Fertilizer Co. in the state of Kansas. It was believed to be the largest single shipment of fertilizer ever made in the state. Celebrating the shipment were Anaconda dealers from throughout the state who were guests of the Spencer Chemical Co. at the Jayhawk yards near Pittsburg, Kansas, recently. Guest speaker Dr. Floyd Smith of Kansas State College said the trainload could provide Kansas farmers an additional $1 million income next year in terms of 800,000 extra bushels of corn or 533,000 extra bushels of wheat. He estimated the trainload was equal to an entire year's consumption of fertilizer in Kansas 20 years ago.**

J. L. Riseden

E. G. Owens

**NAMED TO NEW SALES POSTS—J. B. Beaird Co., Inc., Shreveport, La. has announced the creation of two new district sales manager posts in the LP-gas and anhydrous ammonia equipment divisions. J. L. (Jim) Riseden has been named southern district sales manager and E. G. (Jack) Owens, California district sales manager. Both were formerly sales representatives for the company. J. L. Tullis, Beaird vice president and general sales manager, states that Mr. Riseden's headquarters will be in Shreveport and Mr. Owens will operate out of the company's Stockton, Calif. office. Both will work under the direct supervision of Richard Meisenbach, manager of LP-gas and anhydrous ammonia equipment sales. Beaird has also announced the appointments of A. J. Campbell and C. J. Spears as sales representatives in Minnesota and Wisconsin, respectively.**

## Planting Crops Without Turning Under Previous Residues Becoming Popular

EHRHARDT, S.C. — Planting of soybeans, corn and other crops without first turning under the previous crop is becoming popular in this area of South Carolina, the Edisto Soil Conservation Service reports.

Corn and soybeans have been planted in fields of blue lupine, and soybeans behind oats, without turning under or raking or burning the straw or other remnants.

Conservationists contend that the method increases the return from fertilizer, controls erosion, increases the soil's water intake and lessens compaction, improves soil structure and tilth, increases organic matter in the soil, lowers production costs by $4 to $5 per acre, saves time, and helps in the control of weeds.

## Spencer Names H. C. Ihde Assistant Sales Manager

KANSAS CITY, MO.—Spencer Chemical Co. has announced the promotion of Harold C. Ihde to the position of assistant sales manager, agricultural chemicals. The new assignment brings the functions of the district sales offices as well as agronomy and technical service under the direction of Mr. Ihde, in a move to consolidate the activities of agricultural chemicals sales and sales services.

The new assistant sales manager had been acting as director of agricultural sales development since June, 1955.

Born and reared on a large wheat farm in South Dakota, Mr. Ihde has always focused his interests toward agriculture and agricultural problems. A graduate of the University of Minnesota in 1936, he was employed in the sales department of the United States Gypsum Company and was serving as district supervisor for North and South Carolina when he joined Spencer in November of 1946.

From 1946 until 1950, Mr. Ihde was Spencer sales representative for Minnesota, Wisconsin and the Dakotas, then returned to the general offices in Kansas City as assistant to the agricultural chemicals sales manager. In April, 1951, he was made asssistant to the general sales manager and in July, 1953, assistant director of sales development.

## KENTUCKY

(Continued from page 1)

feature of which, he said, is the test demonstrations on farms to let farmers see the results in increased production and profits. This is an educational program to introduce new fertilizers and to improve fertilization practices, he said.

New high-analysis mixed fertilizers now are being offered to farmers in the western or Tennessee Valley counties of Kentucky, according to Mr. Clement. The use of 10-30-20 mixtures is gaining in popularity, he pointed out and this material is well adapted in the ASC program. Farmers who substituted 10-30-20 for 4-12-8 were able to save on costs through use of the concentrated mixture.

Details of the soil bank operation in Kentucky were outlined by Charles A. Allen, Lexington, program specialist of the State ASC office. At least 200,000 acres of Kentucky corn land have gone into the soil bank, he said. For taking this land out of corn production, farmers will receive about $6 million, the speaker explained. The bank will be most effective in 49 commercial corn counties west of Louisville, it was pointed out.

**Mr. Allen also noted that some growers of burley and other kinds of tobacco have put some tobacco land in the bank. Payments will run $250 to $300 an acre for tobacco land on which no tobacco is produced.**

Fifty-three thousand Kentucky farmers now are carrying on one or more practices in the Agricultural Conservation program, Mr. Allen said. For this cooperation in saving the soil farmers will receive about $6½ million this year, he added.

The farmer and the soil bank was the subject discussed by George Corder, University of Kentucky extension agronomist. He listed the purposes of the bank as: to reduce so-called surpluses and maintain farmer income; to insure food, fiber and wood products for the future, and to create a reserve soil capacity rather than a reserve of stored products.

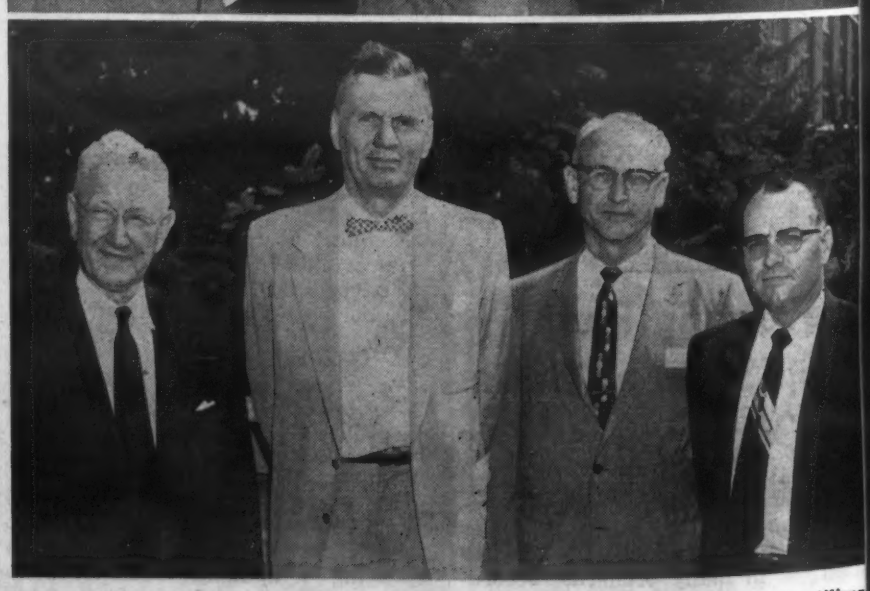
Mr. Corder quoted True D. Morse, under-secretary of agriculture, saying that "within 20 years we m need 30% more increase in fa products over what we produced 1955." Mr. Corder said the soil ba might be considered an insura policy — insurance against a fo shortage. Land not needed now saved for future production, wh the population will be larger, or a time of international crisis su as occurred during the two wo wars.

How pesticides and fertilizers c be used in the same application w discussed by G. Mallory Boush, U versity of Kentucky entomologist. said farmers themselves should the judge as to whether they shou go to the expense of using a mi ture of fertilizer and pest contr material. He listed advantages a disadvantages of using combined m terials.

**Fertilizer-insecticide materials have been gaining in usage in Kentucky, Mr. Boush said, and apparently working well on some crops, notably strawberries, tobacco and corn. In the case of corn, however, only about 1% has been treated.**

Such mixtures, the speaker point ed out, save labor in that two job are done at one time. The mixtur eliminates need for decisions on th part of growers. But growers ma go ahead and use such a mixtur when they do not need the fertilize in it or the pesticide which it con tains, Mr. Boush said.

Approximately 150 registered fo the conference. A luncheon was held at noon. Dr. E. N. Fergus, University of Kentucky agronomist, presided a the morning session and Bruce Poundstone, head of the University's Department of Feeds and Fertilizers, in the afternoon.



**AT KENTUCKY FERTILIZER CONFERENCE—The Kentucky Fertilizer Conference at Lexington, Ky. on Aug. 1, attracted men from a wide area. In the top photo, left to right, are Bruce Poundstone, head of the department of feed and fertilizer, Univ. of Kentucky; Charles A. Allen, program specialist of the state ASC office; and David S. King, Virginia-Carolina Chemical Corp. Below, left to right, are Dr. E. N. Fergus, Univ. of Kentucky agronomist; W. R. Allstetter, vice president, National Plant Food Institute, Washington, D.C.; S. L. Clement, chief of the fertilizer distribution branch of TVA, Knoxville, Tenn.; and George Corder, Univ. of Kentucky extension agronomist.**

Bigger Healthier Faster CROPS

All-Purpose Liquid Fertilizer Complete with Penetrating Agent — Trace Elements — Plant Growth Stimulant

NEW ADVANCED 10-20-10 FORMULA 40% NUTRIENTS

FERTI-LIQUID

Bigger Healthier Faster PROFITS for you

OTHER FERTI-LIQUID FEATURES:

- Extremely easy to apply—no mixing, dust or odor
- Non-corrosive—use safely with any type spray—tractor, jet, boom, or aerial
- Ties in with insecticidal fungicidal, herbicidal spray programs
- Most economical on a Plant Food Nutrient basis

Retails for 1.85 per gal. del'd

ATT: JOBBERS & DISTR'S. Write, Wire, or Phone for Protected Territory

CLOVER CHEMICAL CO. P.O. Box 10865 PITTSBURGH 36, PA.

## V-C APPOINTS

(Continued from page 1)

A. P. Gates

nt of several months' duration. At press time, the office of presint of V-C was still being held temarily by W. C. Franklin, Baltire, Md., who was appointed by the wly-constituted board of directors succeed Joseph A. Howell who had d the position since 1949. However, V-C board was scheduled to meet Friday, Aug. 10, possibly for the rpose of electing a permanent sident.

The status of Mr. Howell, in the eantime, has not been clarified. Folwing his ouster as president, Mr. owell informed the board: "I available for such assignment of ties as may be your pleasure." Mr. owell's situation was reported to be mplicated by the fact that he holds contract with the corporation which es not expire until 1963.

## NEW INSECT

(Continued from page 1)

discovery may indicate another rious pest invasion such as the edfly and at best it may turn out be an isolated incident, the apearance of which may never be plained.

Some fears had been expressed at with Congress not in session ere might be difficulty in obtaining nds for a campaign against the elon fly but it was revealed that SDA has a so-called petty cash acunt where funds for such activies are obtainable.

## National Solutions Assn. to Expand Its Scope of Activity

CHICAGO—The board of directors the National Nitrogen Solutions sn. has made plans for an extenve expansion of the services and tivities of the association, it was nounced following a recent meetg of the body.

Among their decisions was the reining of professional trade associaon management to handle all of e group's affairs. Accordingly, the sociation management firm of orms and Westcott, 2217 Tribune wer, Chicago, was selected to mange the affairs of the association unr the direction of the officers and ard.

**"Storms and Westcott is one of he leading professional trade assoiation firms in the country," the NNSA said in its announcement. The firm is under the direction f Minita Westcott, one of the ecognized top leaders in organization management. Their offices are established in an easily accessible location, with modern equipment, adequate space, an office staff of twelve persons carefully trained in the details of association work, and with executives of long experience in every phase of trade association management and activities," the association release stated.**

The association's board of directors expects to develop additional services and activities for NNSA as rapidly as possible. Among the new activities outlined by the board, were the issuance of a monthly news letter to all members; regular news releases from the association to the trade press; an intensive membership drive; a product file of all types of application equipment, supplies and fittings, including the names of manufacturers and suppliers of raw material, to be available to any member of the association; news releases to be available to members for use in local newspapers; compilation of costs relative to the operation of various types of plants and lease rental equipment; envelope stuffers and other direct mail pieces; development of grants-in-aid to colleges for nitrogen and liquid fertilizer experiments.

**Minita Westcott, owner of the firm, has gained wide recognition as an association executive, having served as president of the American Society for Association Executives; and as head of the Trade Association Executives Forum of Chicago. She is presently on the boards of a number of other trade association organizations.**

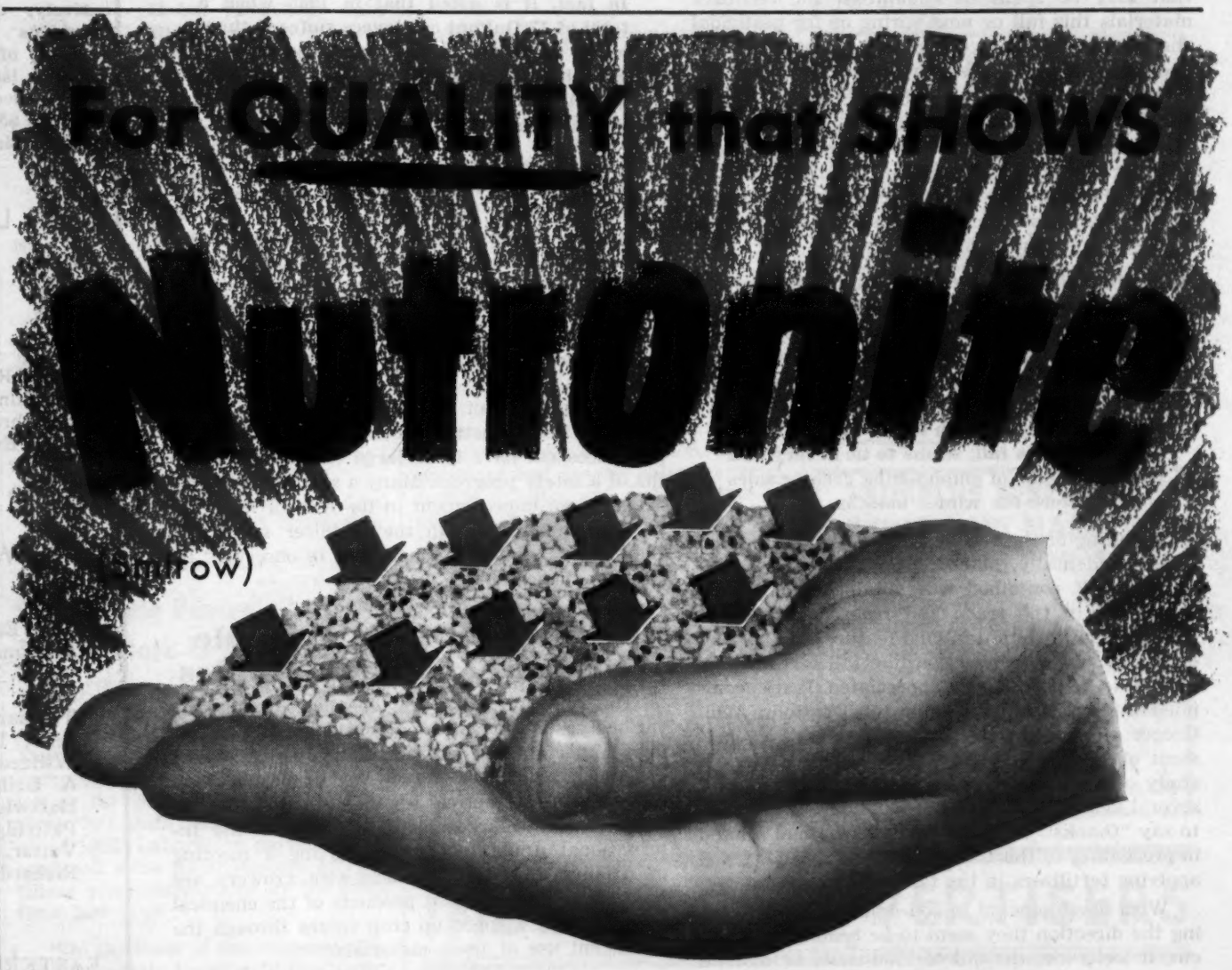
The executive secretary, appointed by the board is Muriel F. Collie, staff counsel and executive assistant in the firm of Storms and Westcott. She is a graduate of Northwestern University School of Law, and a member of the bar of Massachusetts. She has had extensive experience in all phases of trade association management.

## Corn Insects Widely Distributed in Iowa

AMES, IOWA—European corn borer second brood moths are flying in all parts of Iowa. Light trap catch at Ankeny ran 98, 138, 108 and 87 moths per night the week of Aug. 3. Pupation in central Iowa ranges from 35-40% with 10% emergence. There are 25 egg masses per 100 plants on late corn at Ankeny.

Early planted corn is nearly 100% infested with corn earworm. Moths are flying and corn silking now will probably be heavily infested. Indiana investigations in 1955 showed that about 1% of the tip kernels were destroyed by earworms. This may help hybrid corn growers evaluate their problem.

Many counties report widespread grasshopper treatment with excellent results. However, there are still heavy populations in local areas which should be sprayed. All species are adult in the south ⅔ of Iowa.


..and quality you can *talk* about!

**YOU CAN BAG NUTRONITE FOR LAWNS**

Bag Nutronite to fill out your line of lawn and garden fertilizers. Golf courses use large quantities, too. For information on this profitable market for an all organic fertilizer write Smith-Rowland Co., Norfolk, Va.

Nutronite (formerly Smirow) adds to the selling power of your mixed fertilizers. Plainly visible Nutronite assures your customers of added growth and profits . . . brings back satisfied customers year after year.

Nutronite is the 100 percent natural organic addition to mixed fertilizers. Its nitrogen is 90% water insoluble and 90% available—for that all-season effect on plant growth.

Nutrition + Nitrogen = Nutronite

*Let us figure the cost of Nutronite delivered to your plant.*

SMITH NUTRONITE ROWLAND

SMITH-ROWLAND CO.
P. O. Box 1219, Norfolk 1, Va.

# Croplife®

A WEEKLY NEWSPAPER FOR THE FARM CHEMICAL INDUSTRY

The regional circulation of this issue is concentrated in the Southern states.


## Soil Bank Funds May Boost Fall Sales of Fertilizers

A possible boon for the sale of additional tons of fertilizer materials this fall is indicated in the fact that more than $100 million in government checks is due to be distributed to farmers before election time this year. As noted in Croplife's news report last week, covering this phase of soil bank activity, this will be "found" money so far as these farmers are concerned. "It is cash in the pocket that may be spent or committed for fertilizer materials this fall or next spring or for pesticidal chemicals before harvest in such crops as cotton and spring wheat," the story indicates.

Naturally, since November, 1956 is election time, this windfall for farmers has strong political overtones. But regardless of how one feels about whether the policy is good or bad, the fact that some $112 million is being placed in the hands of the industry's prime customer, should make fertilizer salesmen rub their hands in glee.

**That there is a broad and active interest in increasing fall sales of fertilizers is seen in the enthusiastic response to Croplife's recent fall fertilization special issue which outlined the thinking of many agronomists and trade personnel on the subject. The fact that a lot of extra cash is to be in the hands of growers this fall, seems to tie in very well with the theme of emphasizing greater sales efforts before the winter months.**

Speaking of the recent fall fertilization special issue, incidentally, material for much of the information it contained was obtained from many companies in the trade and from a number of colleges and universities. One feature, the page of questions and answers regarding fall fertilization, seemed to be particularly appreciated. It was compiled through the cooperation of Dr. John MacGregor of the University of Minnesota's department of soils, which has been making a thorough study of fall-applied plant nutrients for the past several years. This seems like an appropriate time to say "thanks" once again to all who had a hand in presenting to the trade, facts about buying and applying fertilizers in the fall of the year.

With developments in soil bank payments taking the direction they seem to be heading at present, it looks like the fall of 1956 could be notable not only from the standpoint of electing a government team to run the country for the next four years, but it also may be looked back upon as the time when the idea of off-season fertilizer sales took a more firm hold on agriculture for the betterment of both buyer and seller.

## No-Injury Year Sought in DuPont Safety Campaign

An all-out safety objective has been announced by E. I. du Pont de Nemours & Co. wherein the company expects to spend over $4 million this year, plus an incalculable amount of effort, to keep its 100,000 employees working even more safely than before. It wants each and every employee to go an entire year without injury.

**So far as we know, such a goal has never been realized anywhere with so many people involved, but someone will of course have to lead the way if such an achievement is ever to be. The company is going at it in a logical manner, striving first to get through a completely injury-free month, and then seek the elusive record of a full year without injury.**

In a message to employees of the company, Robert L. Richards, vice president, said that a goal of no injuries is entirely realistic and can be achieved. He added that this is borne out by the fact that seventy of DuPont's plants and laboratories operated throughout 1955 without a single disabling injury.

Safety at DuPont and in the chemical industry in general is far from being a new idea. It is significant, however, that in a business in which thousands of people are concerned in their daily jobs with the production and compounding of potentially dangerous chemicals in addition to working with the normal tools of production such as steam, electricity, and heavy machinery, that there should be so few accidents.

**In fact, it is noted that in 1955 when a total of 77 DuPont employees suffered time-losing accidents on the job, almost exactly four times as many, 307 of them, were hurt in falls around their homes. Altogether, they sustained 1,651 injuries off the job.**

Safety in fertilizer and pesticide manufacturing plants must be a non-stop campaign of continual precaution. Many companies, in addition to DuPont which is presently enlarging its efforts, have found that an emphasis on safety creates a favorable atmosphere for efficiency and better relations. A tangible interest in the physical well-being of employees does much to strengthen their loyalty to the company which shows such an attitude.

The best part of the safety picture, so far as the fertilizer industry is concerned, is the company does not have to be large to reap the benefits of a safety program. Many a smaller plant can attest to an improvement in its over-all workings through membership in the fertilizer section of the National Safety Council, and in observing its sensible suggestions.

## Pesticides Make Possible Attractive, Saleable Apples

The role of agricultural chemicals in making various fruits attractive and saleable is particularly important in the production of apples which are much inclined to be wormy or scabby, and otherwise unattractive to the critical gaze of housewives in market places. This week the International Apple Institute is having a meeting in Atlanta and these business-wise growers are recognizing the fact that products of the chemical industry have stepped up crop values through the intelligent use of these materials.

**A top USDA authority at the Beltsville experiment station says that the clean bill of health given to certain fungicides by the Food and Drug Administration has made a great difference in producing a practically disease-free crop of apples this year. Many varieties of the fruit have been treated, enabling the apples to develop in excellent condition, with sizing and shaping to make shoppers drool.**

The use of pesticides on the apple crop is putting more and more dollars into the pockets of fruit growers and dealers this year, and the practice is likely to continue and expand in future seasons.

The pesticide industry might well take a bow in the case of the perfect fruit. The Apple Institute people appear to be pleased with results and naturally the pesticide trade is happy to see its products being put to effective use in this manner.

## Quote

"It's been a long time now since we have had a really bad crop year in this country. In fact, in modern times, we never have had the kind of crop failure that some countries have had when they had bad weather all over or when some staple crop on which everyone depended, failed . . . In so broad a land where such widely varying conditions prevail, a general crop failure is unlikely."—Louisiana Extension Service Editorial.

Croplife

BPA Member of Business Publications Audit

NBP Member of National Business Publications

CROPLIFE is a controlled circulation journal published weekly. Weekly distribution of each issue is made to the fertilizer manufacturers, pesticide formulators and basic chemical manufacturers. In addition, the dealer-distributor-farm adviser segment of the agricultural chemical industry is covered on a regional (crop-area) basis with a mailing schedule which covers consecutively, one each week, four geographic regions (Northeast, South, Midwest and West) of the U.S. with one of four regional dealer issues. To those not eligible for this controlled distribution Croplife subscription rate is $5 for one year ($8 a year outside the U.S.). Single copy price, 25¢.

•

LAWRENCE A. LONG
*Editor*

DONALD NETH
*Managing Editor*

EDITORIAL STAFF — John Cipperly, Washington Correspondent; George E. Swarbreck, Canadian and Overseas Editor; Emmet J. Hoffman, Merchandising Editor; L. R. McDonald, Research Director.

•

WILFRED E. LINGREN
*Advertising Director*

BUSINESS STAFF—Carroll K. Michener, Chairman of the Board of Directors; Harvey E. Yantis, President; Milton B. Kihlstrum, Executive Vice President and Treasurer; Martin E. Newell, Vice President; Don E. Rogers, Vice President; Wilfred E. Lingren, Secretary; Thomas A. Griffin, Business Manager; Edwin J. Hartwick, Circulation Manager; James G. Pattridge, Assistant Treasurer; Carl R. Vetter, Advertising Production Manager; Richard Ostlund, Office Manager.

•

BRANCH OFFICES

EASTERN STATES—Paul L. Dittemore, Eastern Advertising Sales Manager; George W. Potts, New York Office Manager; Walter C. Smith, Editorial Assistant; 551 Fifth Ave., New York 17, N.Y. (Tel. Murray Hill 2-2185).

CENTRAL STATES—Don E. Rogers, Manager; Henry S. French, Assistant Manager; 2272 Board of Trade Bldg., 141 W. Jackson Blvd., Chicago 4, Ill. (Tel. Harrison 7-6782).

SOUTHWEST—Martin E. Newell, Manager; James W. Miller, Assistant Manager; 612 Board of Trade Bldg., Kansas City 5, Mo. (Tel. Victor 2-1350).

WASHINGTON CORRESPONDENT — John Cipperly, 604 Hibbs Bldg., Washington, D. C. (Tel. Republic 7-8534).

EXECUTIVE AND EDITORIAL OFFICES — 2501 Wayzata Blvd., Minneapolis, Minn. Tel. Federal 2-0575. Bell System Teletype Service at Minneapolis (MP 179), Kansas City (KC 295), Chicago (CG 340), New York (NY 1-2452), Washington, D.C. (WA 82).

•

Published by
THE MILLER PUBLISHING CO.
2501 Wayzata Blvd., Minneapolis, Minn.
(Address Mail to P. O. Box 67, Minneapolis 1, Minn.)

Associated Publications—THE NORTHWESTERN MILLER. THE AMERICAN BAKER. FEEDSTUFFS. MILLING PRODUCTION

# MEETING MEMOS

g. 14-15—Ohio Pesticide Institute, ummer Meeting, Ohio Agricultural xperiment Station, Wooster, Ohio, . D. Wilson, Wooster, Ohio, Secre-ary.

g. 16-17—Safety Training School or Fertilizer Plant Supervisors, Cape Fear Hotel, Wilmington, N.C.

g. 17-25—Tenth International Con-ress of Entomology, McGill Uni-ersity and University of Montreal, Montreal, Canada, J. A. Downes, cience Service Bldg., Carling Ave., Ottawa, Ontario, Canada, Con-ress Secretary.

g. 20-22 — Corn Belt Branch, American Society of Agronomy, Summer Meeting, Purdue Univer-ity, Lafayette, Ind.

g. 22-24—Beltwide Cotton Mecha-nization Conference, Atlanta Bilt-more, Atlanta, Ga., sponsored by National Cotton Council.

g. 24—Grassland-Dairy Feld Day n Observance of the 25th Anniver-ary of Rutgers University Dairy Research Farm, Beemerville, N.J.

g. 27-30—Course on Tank Truck Transportation of Chemicals, Mich-gan State University, East Lans-ing, Mich.

g. 28-29—Fertilizer Meeting, Ne-braska Agricultural College, Lin-coln, Neb. Sponsored by the Agri-cultural Ammonia Institute.

g. 30—South Carolina Plant Food Educational Society, Clemson House, Clemson, S.C.

pt. 5-7 — National Agricultural Chemicals Assn., 23rd Annual Meeting, Essex and Sussex, Spring Lake, N.J., L. S. Hitchner, 1145 19th St. N.W., Washington, D.C., Executive Secretary.

pt. 18-19—Symposium on Chemi-cals in Food Production, Presented by Division of Chemical Marketing and Economics, American Chemi-cal Society, Atlantic City, N.J.

ct. 9—Western Agricultural Chemi-cals Assn., Fall Meeting, Villa Hotel, San Mateo, Cal., C. O. Bar-nard, 2466 Kenwood Ave., San Jose, 28, Cal., Executive Secretary.

ct. 15 — Fifth Annual Chemical Sales Clinic, the Salesmen's Asso-ciation of the American Chemical Industry; Hotel Commodore, New York City; chairman, Preston F. Tinsley, Westvaco Chlor-Alkali Division, Food Machinery and Chemical Corp., 161 East 42nd St., New York 17, N.Y.

ct. 16-17—National Nitrogen Solu-tions Assn., Annual Meeting and Trade Show, City Auditorium, Sioux City, Iowa; John White, Au-burn, Neb., secretary.

ct. 16-18—Fertilizer Industry Round Table, Shoreham Hotel, Washing-ton, D.C. Vincent Sauchelli, Chief Agronomist, Davison Chemical Co., Div. W. R. Grace Co., Baltimore 3, Md., chairman.

ct. 16-18—Canadian Agricultural Chemicals Assn., Fourth Annual Meeting and Conference, Sheraton-Brock Hotel, Niagara Falls, On-tario.

ct. 18-19—Association of American Fertilizer Control Officials, Shore-ham Hotel, Washington, D.C., B. D. Cloaninger, Clemson Agricultural College, Clemson, S.C., secretary-treasurer.

ct. 22-23—Fertilizer Section, Na-tional Safety Council, La Salle Ho-tel, Chicago, Ill.; Curtis A. Cox, Virginia-Carolina Chemical Corp., Richmond, Va., chairman.

ct. 23-24—Pacific Northwest Gar-den Supply Trade Show, Shrine Auditorium, Portland, Ore.

ct. 25—Middle West Soil Improve-ment Committee, Annual Meeting, Sherman Hotel, Chicago; Z. H. Beers, Executive Secretary, 228 N. La Salle St., Chicago 1, Ill.

Nov. 2—Joint Agronomy-Industry Work Conference, Atlanta Biltmore Hotel, Atlanta, Ga.

Nov. 7-9—Agricultural Ammonia Institute, Annual Convention, Atlanta Biltmore Hotel, Atlanta, Ga., Jack F. Criswell, Claridge Hotel, Memphis, executive vice president.

Nov. 7-9 — Pacific Northwest Plant Food Assn., Annual Convention, Harrison Hot Springs Hotel, Harrison Hot Springs, British Columbia, Leon S. Jackson, Lewis Bldg., Portland, Ore., secretary.

Nov. 11-13 — California Fertilizer Assn., 33rd annual convention, Del Coronado Hotel, Coronado, Cal.; Sidney H. Bierly, executive secretary, 475 Huntington Drive, San Marino 9, Cal.

Nov. 19-20 — Eastern Branch, Entomological Society of America, Hotel Haddon Hall, Atlantic City, N.J., B. F. Driggers, Rutgers University, New Brunswick, N.J., secretary.

Nov. 28—Oklahoma Fertilizer Dealers Conference, Sponsored by the Oklahoma Plant Food Educational Society, Oklahoma A&M College, Stillwater.

Nov. 29—Oklahoma Soils and Crops Conference, Oklahoma A&M College, Stillwater.

Dec. 27-31—Entomological Society of America, Annual Meeting, Hotel New Yorker, New York City.

July 17-19—Southwest Fertilizer Conference, Galvez Hotel, Galveston, Texas.

## Soil Testing Passes 10,000 Mark in Alabama

AUBURN, ALA. — Soil testing in Alabama passed a heretofore unreached mark in mid-July, the State Experiment Station has announced. Samples coming in to the API soils lab so far this year totaled 10,000—some 700 more than were tested in all of 1955. Laboratory personnel had analyzed some 6,500 samples for fertilizer recommendations at the same time last year.

**"On the basis of this increase, it's pretty certain thaat we'll reach our predicted total of 13,000 samples tested in 1956," said Dr. Clarence M. Wilson, lab head. "The year's second heaviest run of samples, from fields where fall crops will be planted, has yet to be included." He explained that the fall busy season usually starts about the middle of August.**

According to Dr. Wilson, many growers who took advantage of this service when the lab first started doing business in 1953 will need new fertilizer recommendations this year on fields that were tested then. Farmers are advised that sampling must be done at least every three years for accurate computation of the most efficient fertilization rates for any one field.

### SAFETY SPEAKER CHANGE

CHICAGO—A change in the speaking program for the annual meeting, fertilizer section, National Safety Council, has been announced by the group. H. B. Devinny, director of industrial relations for Davison Chemical Co., Division of W. R. Grace & Co., Baltimore, will appear on the program in the place of William M. Watmough, Jr., Davison vice president. The meeting will be held in the LaSalle Hotel, Chicago, Oct. 22-23.

Clarence E. Elsas

## Fulton Bag Announces New Appointments

NEW ORLEANS, LA. — Clarence E. Elsas, Atlanta, Ga., has been named executive vice president of Fulton Bag & Cotton Mills, it has been announced by Bernard A. Mitchell, chairman of the company's executive committee.

At the same time it was also announced that the company has consolidated its former mills and textile divisions into one division which will now be known as the textile division. Chosen to head the division is Mr. Elsas while other appointments include: Fred G. Barnet, former St. Louis manager, bag division, as vice president and general sales manager, textile division, and J. F. Greene as general manager of textile manufacturing.

To replace Mr. Barnet at St. Louis, Jason M. Elsas, vice president, bag division, New Orleans, named E. Monroe Hornsby, vice president, who has been in charge of Fulton's New York office.

Fulton's textile division headquarters are located in Atlanta and the bag division's operations are directed from New Orleans. Branch manufacturing plants and sales offices are located in Atlanta, Dallas, Denver, Kansas City, Los Angeles, Minneapolis, New Orleans, St. Louis, Savannah, New York, Chicago, Phoenix, Oklahoma City and San Francisco.

## J. J. McDermott Joins Kraft Bag Corp.

NEW YORK—F. L. Munger, vice president in charge of sales for Kraft Bag Corp., has announced the appointment of Joseph J. McDermott to the sales staff. He will represent the company in metropolitan Chicago, northern Illinois and in Michigan, operating out of Kraft's Chicago office.

### ZINC DEFICIENCY STUDIED

DAVIS, CAL.—University of California scientists are studying zinc deficiencies in soils of the state. Additions of this "minor element" has boosted yields of sweet corn, beans, tomatoes and sugar beets in various parts of the state.


## Classified Ads

**Classified advertisements accepted until Tuesday each week for the issue of the following Monday.**

**Rates: 15¢ per word; minimum charge $2.25. Situations wanted, 10¢ a word; $1.50 minimum. Count six words of signature, whether for direct reply or keyed care this office. If advertisement is keyed, care of this office, 20¢ per insertion additional charged for forwarding replies. Classified advertising rate not available for commercial advertising. Advertisements of new machinery, products and services accepted for insertion at minimum rate of $9 per column inch.**

**All Want Ads cash with order.**

MACHINERY FOR SALE

**SURPLUS FERTILIZER MIXING AND HANDLING EQUIPMENT FOR SALE**

Complete list of machinery available at Berkeley and Los Angeles plants will be sent on request to:

**Pacific Guano Company**
**1832 Second Street**
**Berkeley 10, California**
**Phone: THornwall 5-7120 TWX: OA 430**


# INDEX OF ADVERTISERS


| | |
|---|---|
| Allied Chemical & Dye Corp., Nitrogen Division | 24 |
| American Potash & Chemical Corp. | |
| Anco Manufacturing & Supply Co. | |
| Ashcraft-Wilkinson Co. | 18 |
| Atkins, Kroll & Co. | |
| Baughman Manufacturing Co., Inc. | |
| Beaird, J. B., Co. | |
| Bemis Bro. Bag Co. | 2 |
| Bennett Industries, Inc. | |
| Blue, John, Co. | |
| Bonneville, Ltd | |
| Bradley & Baker | |
| Broyhill Company | 5 |
| Burrows Equipment Co. | |
| Butler Manufacturing Co. | |
| California Spray-Chemical Corp. | 15 |
| Chase Bag Co. | |
| Clover Chemical Co. | 20 |
| Commercial Solvents Corp. | |
| Davison Chemical Co. | |
| Deere & Co., Grand River Chem. Div. | |
| Diamond Black Leaf Co. | |
| Douglas Chemical Company. | |
| E. I. du Pont de Nemours & Co., Inc. | |
| Emulsol Chemical Corporation | |
| Fabricated Metals, Inc. | |
| Fairfield Chemical Division, Food Machinery and Chemical Corp. | |
| Flint Steel Corporation | |
| Grace Chemical Co. | |
| Grand River Chemical Div., Deere & Co. | |
| Hahn, Inc. | |
| Hasco Company | |
| Henderson Mfg. Co. | |
| Hercules Powder Co. | |
| Hough, Frank H., Co. | |
| Hypro Engineering, Inc. | |
| International Minerals & Chemical Corp. | 3 |
| Kent, Percy, Bag Co. | |
| Kraft Bag Corp. | |
| Lion Oil Co., Div. Monsanto Chem. Co. | 17 |
| Meredith Publishing Co. | |
| Miller Publishing Co., The | |
| Minerals & Chemical Corp. of America | |
| Mississippi River Chemical Co. | |
| Monsanto Chemical Co. | 17 |
| National Potash Co. | |
| Naugatuck Chemical Div., U. S. Rubber Co. | |
| Nitrogen Div., Allied Chemical & Dye Corporation | 24 |
| Olin Mathieson Chemical Corp. | |
| Pacific Coast Borax Co. | 6 |
| Pennsylvania Salt Mfg. Co. of Washington | 13 |
| Phillips Chemical Co. | 8 |
| Potash Company of America | |
| Private Brands, Inc. | |
| Rieke Metal Products Corp. | |
| Shell Chemical Corp. | |
| Sinclair Chemicals, Inc. | |
| Smith-Rowland Co., Inc. | 21 |
| Sohio Chemical Co. | |
| Spencer Chemical Co. | |
| Stauffer Chemical Co. | |
| Stewart-Warner Corp. | |
| Successful Farming | |
| Summers Fertilizer Co., Inc., The | |
| Tennessee Corp. | |
| Thomas Alabama Kaolin Co., The | |
| Union Bag and Paper Corp. | |
| U. S. Phosphoric Products Division | |
| U. S. Potash Co. | 7 |
| U. S. Rubber Co., Naugatuck Chem. Div. | |
| U. S. Steel Corp. | |
| Velsicol Chemical Corp. | |
| Virginia-Carolina Chemical Corp. | 4 |
| Vulcan Containers, Inc. | |

**Rapid development** of farmer interest in the use of fertilizers in the fall is creating a new and expanding market for alert dealers.

Fall-seeded grains, fall pastures and fall-planted specialty crops all need fertilizers to make vigorous growth and produce big, profitable yields. Fall plowdown of fertilizers for spring crops is also a substantial sales opportunity.

Many ARCADIAN® High-Nitrogen Fertilizers are ideally suited for fall use . . . ARCADIAN UREA 45, the concentrated, leach-resistant 45% nitrogen fertilizer . . . also economical, fast-spreading ARCADIAN Nitrogen Fertilizer Solutions . . . or magnesium-rich ARCADIAN A-N-L® Nitrogen Fertilizer . . . or new ARCADIAN Ammonium Nitrate . . . and ARCADIAN 12-12-12 Granular Fertilizer.

**With these** and other ARCADIAN High-Nitrogen Fertilizers, you now have a golden opportunity to develop a big-profit fall business. Powerful ARCADIAN advertising is helping to expand and extend your fertilizer sales season, to make your fertilizer business a year-round business. Write now for full details on the complete ARCADIAN line.

**NITROGEN DIVISION** Allied Chemical & Dye Corporation

New York 6, N.Y. • Hopewell, Va. • Ironton, Ohio
Omaha 7, Neb. • Indianapolis 20, Ind. • St. Paul 4, Minn.
Kalamazoo, Mich. • Columbia, Mo. • Columbia 1, S.C.
Atlanta 3, Ga. • San Francisco 4, Cal. • Los Angeles 5, Cal.

NITROGEN DIVISION ALLIED CHEMICAL

# Grow with Arcadian®

## High-Nitrogen Fertilizers for Profitable Farming